SCIENCE FICTION ADVENTURE CLASSICS

No. 14 • SUMMER 1971 • 60¢

THE HIDDEN UNIVERSE
by Ralph Milne Farley

THE INVISIBLE INVASION
by Frederick Arnold Kummer Jr.

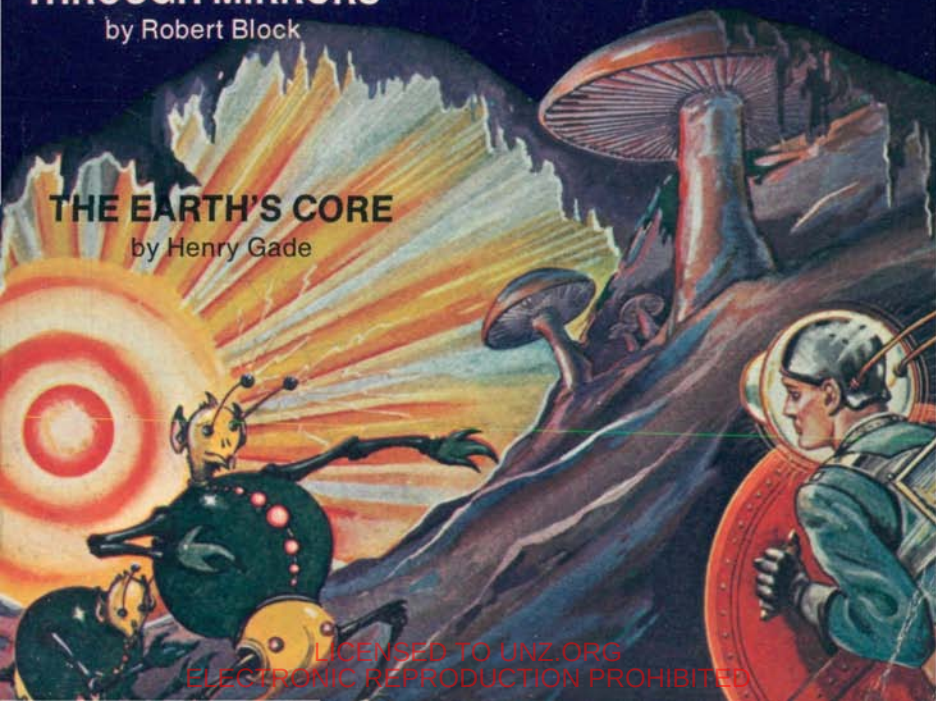
MR. CRADDOCK'S AMAZING EXPERIENCE
by William F. Temple

LOCKED CITY
by Thornton Ayre

WIVES IN DUPLICATE
by Don Wilcox

THE MAN WHO WALKED THROUGH MIRRORS
by Robert Block

THE EARTH'S CORE
by Henry Gade



LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

THE EARTH'S CORE

By HENRY GADE

(See Front cover painting by H. R. Hammond)

The nature of the Earth's core has long been a point of discussion among scientists, and there are several interesting theories which point to a fantastic "world inside a world."

SOME years ago, a famous science fiction writer by the name of Edgar Rice Burroughs wrote a story about a world inside the earth called *Pellucidar*. At the same time, another science fiction writer hit on the same idea. Ralph Milne Farley wrote the first of his "inner world" stories. Curiously enough, both writers got their idea from the same source, a book treating with Perry's strange experiences as he neared the north pole on the final days of his historic dash.

Briefly, what happened to Perry is this: Each day of his progress was logged, and by shooting the stars with a sextant, he found what his actual progress was in miles. Curiously enough, the nearer he got to the pole, the faster he seemed to progress. He attributed this to enthusiasm, better traveling conditions, etc., but the last few days seemed to shatter any such theories, for he traveled at a perfectly fantastic rate. Many times he checked his sextant readings, and was reluctantly forced to accept the truth—he was traveling 80 miles a day where he should have made only 30 or 40 at the most! Why? He couldn't tell.

However, this is only one factor which is brought forth to build up a hypothesis of an inner world. The others are the aurora, whose brilliant mystery colors cannot be directly traceable to solar rays, and the incredible fact that if the earth is made, as previously believed, of almost solid nickel-iron, its weight is hardly enough to take in a solid mass 8000 miles in diameter. Therefore, these theorists hold, it *isn't solid.*

In concise presentation, their theory is this: The reason Perry made such sensational speed, as shown by his repeatedly checked observations, was because he was *descending* over the lip of a great opening at the top of the earth, leading into an inner world! Therefore, he traversed a much more pronounced curvature of earth surface than a sphere of 8000 miles in diameter would present.

When he reached the point where his magnetic needle dipped, he thought he had reached the pole, but in reality, he had reached only midway into the great opening into the inner world, and the nickel-iron crust enclosing it! There he halted, planted his flag, and turned back.

To go on, these theorists say that the mass of iron in the earth's crust, weighing approximately six trillion tons, would be explained by a crust of some 60 miles thickness, and a hollow interior.

Further, they say, this inner world is lighted and heated by a central core of molten, or radio-active matter, which serves as a central sun. It is the light, or radio-active emanations from this that cause the aurora borealis, being not an effect in the upper atmosphere caused by solar rays acting on the gases of the air, but simply a reflection of this inner sun's light.

Both Burroughs and Farley were fascinated by this conception of an inner world, and both wrote stories that have proven immensely popular. Both used the same conception, and both men submitted manuscripts to a well-known editor on the same day!

But, in spite of this now popular conception, does such an inner world exist? And if it does, what are the conditions inside it?

Let us consider. First, with such a central sun it would be likely that it would be a very hot world. Like a room with a red hot stove in it, and only two very tiny windows, perhaps no greater than a couple of knot-holes in a cabin wall, to allow heat to escape. Therefore, if life exists, it would be life able to endure great heat. Tropic verdure, if greenery exists at all, would be the rule. And life might possibly be similar to that of the outer surface during the carboniferous period, or more likely, insect in nature.

Our front cover this month depicts the artist's conception of how this inner world might look, and how its inhabitants might have evolved.

An outer world man, continuing on from where Perry left off, would enter this inner world, and find that he was very foresighted in bringing along oxygen equipment, a helmet to aid his breathing, and heat-proof clothing. He would need a leadcoated shield to protect himself from the radiations of the central sun. He might even need weighted shoes and garments, since he would face much less gravity pull than on the outer surface, since it would be distributed about him, instead of entirely beneath him. And he would need any weapons he chanced to bring along, because more than likely, the insect-men of the

(CONTINUED ON PAGE 116

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

A GREAT NEW COLLECTION

SCIENCE FICTION ADVENTURE CLASSICS

No. 14
SUMMER 1971

HENRY GADE	2	THE EARTH'S CORE
RALPH MILNE FARLEY	4	THE HIDDEN UNIVERSE
ROBERT BLOCH	62	THE MAN WHO WALKED THROUGH MIRRORS
DON WILCOX	72	WIVES IN DUPLICATE
WILLIAM F. TEMPLE	82	MR. CRADDOCK'S AMAZING EXPERIENCE
THORNTON AYRE	92	LOCKED CITY
REDERIC ARNOLD KUMMER, JR.	118	THE INVISIBLE INVASION

Cover painting by H. R. Hammond

SCIENCE FICTION ADVENTURE CLASSICS is published quarterly by Ultimate Publishing Co., Box 7, Oakland Gardens, Flushing N.Y. 11364 at 60¢ a copy. Subscription rates: One year (4 issues) U.S. and possession: $2.00; Canada and Pan American Union Countries: $2.50; all other countries: $3.00.
Copyright 1971 by Ultimate Publishing Co., Copyrighted 1938, 1939, 1940, 1941 by Ziff-Davis Publishing Co. All rights reserved.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The Hidden Universe

By Ralph Milne Farley

Robert Cathcart set out to find his brother, and the trail led to a weird universe in solid space!

CHAPTER I

Multimillionaire Man of Mystery

FRAIN City, New Jersey, center of the far-flung industrial empire of billionaire Malcolm Frain.

On all sides towered factory buildings, devoted to the manufacture of hundreds of products—massive machinery, household utensils, hairpins, locomotives, battleships, and cosmetics. Each factory bore the name of Frain, and from twin flagstaffs on every building fluttered the stars and stripes; and another flag: a red "F" in a white circle on a blue field. The streets were jammed with trucks, carting the Frain products to the Hudson River docks, there to be loaded on Frain Line steamers which would carry them to the principal ports of the world.

Along one of these crowded thoroughfares walked two truckdrivers in trim black uniforms and shiny puttees. One was stocky and swarthy; the other, tall and blond and sandy haired.

The dark one stared aloft at the towering factories. "They say Malcolm Frain is worth twenty billions—billions, Cathcart, not millions!" He spat vehemently, as though to show his contempt for all that wealth.

Cathcart grunted absently. There were lines of worry on his blond face, and his thoughts were far away from any consideration of Malcolm Frain's fabulous fortune.

His swarthy companion, nettled at his lack of response, snapped, "What's eating you, Cathcart?"

"It's this mysterious hocus-pocus that pervades the Frain organization," Cathcart replied. "Here we are, Terro, on our way to Headquarters, and we haven't the slightest idea why they have sent for us! Maybe they're going to ship us off to one of the Frain colonies, without even asking if we wish to go. Where *are* these colonies, anyway? This secrecy is getting on my nerves."

"They don't keep any secrets from me," Terro taunted. "Perhaps they take you for a reporter—Frain won't let a newshawk set foot this side of the Hudson. I know why they sent for *me*. I'm going to be promoted and shipped to one of the colonies."

"Which one?"

Terro shrugged. "No use to ask that. They never tell—just ship a feller off. Maybe a banana plantation, or one of

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

his African rubber forests. Maybe his Arabian oil-fields. Not that I care; to hell with 'em, so long as I get what's coming to me."

"Yes, they never tell," said Cathcart, as though talking to himself. "And no-one ever writes back. I haven't heard once from my brother."

"Well, I should worry," Terro laughed irritatingly. "My new job will mean less work, more pay, and a change from wheeling these damn trucks day and night. And there should be a good chance for graft, that far from Headquarters."

The two drivers reached a towering building of shiny black tile, chromium plate, and translucent glass blocks. Entering, they gave their names to a black-uniformed official at a desk just inside the door, and were directed to a reception hall at the rear of the ground floor.

AS Cathcart and Terro started down the corridor, they had to step aside to make way for a jostling throng of about five hundred men, women, and children, laden with bundles, bags, and suitcases. These people were being herded out of the building by a score or so of black-uniformed guards. The men looked exalted and determined; the women, somewhat apprehensive; the children, happy and excited.

These folks were en route to one of the Frain colonies, the two truck drivers knew. Turning, Cathcart and Terro watched the colonists tramp out the front door, to be loaded into busses and driven toward the docks, bound no one knew whither. Cathcart pictured his brother departing like that, six months ago. In one of the pockets of Cathcart's black blouse was the last letter he had received from Johnny. He had read it so often he knew it by heart:

Dear Bob:

I've got my chance at last. Am being shipped to one of the Frain plantations. Africa, I believe, although the employment office is a bit indefinite about that.

But they did impress upon me that the mail-service between there and the States is irregular, and that the operations of the plantation are secret. So I was told to notify my family not to worry if they don't hear from me. You are my only family, so this is the notification.

Anyway, my new job is a promotion, and means a big raise in pay; so congratulate me. I'll write again as soon as permitted.

Yours,
John.

Fine for Johnny, winning a promotion in one of the most reputable and outstanding industrial organizations of America! Yet somehow the letter hadn't rung quite true, although Bob Cathcart at the time had been so engrossed in chemical experimentation that he had been only vaguely conscious of that fact.

Two months later the entire technical staff of the Chemical Foundation for which Cathcart worked had suddenly been laid off. After another month, unable to secure any work in his own line, and worried because he had not heard from Johnny again, Cathcart had secured a job with the Frain Truck Lines, Inc., not only because it was the only work available in the depths of a depression, but also in the hope that he might thereby get some clue as to what had become of his brother.

Cathcart had telephoned the Frain employment office several times to inquire about his brother, but always was put off with the vague reply, "He's well, and likes his new work. Write him, care of us, and we'll forward your letter." Cathcart had written repeatedly, but no reply had ever come.

With a sigh, Cathcart now turned and

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

followed Terro down the hallway to the room which the doorman had indicated. It resembled the waiting-room of a railroad station. About two hundred men —most of them in black uniforms, but some in business suits, and a few in overalls—sat on the benches, chatting in whispers or rustling newspapers, or shifting nervously in their seats.

As Cathcart and Terro sat down in a vacant space, Cathcart's attention fell on the headline of a New York tabloid newspaper lying besides him:

MULTIMILLIONAIRE MAN OF MYSTERY

Beneath this headline was a picture, evidently a composite, showing Malcolm Frain's head combined rather crudely with a black uniformed body. The caption was:

Is Malcolm Frain a philanthropist, or a financial wizard, or both, or neither? (Story, page 16).

Cathcart turned to page 16, and read:

How is Malcolm Frain able to hire one thousand unemployed a day, when all the other industrialists are laying men off? Even Frain's billions can't last forever, for unlike the Federal Government, he does not have unlimited credit—nor any Social Security funds which he can divert to finance a deficit.

And although his price-cuts are threatening the solvency of his competitors, and are keeping all the factories of his private city over in Jersey operating full time; yet no business can endure without profits, and profit seems impossible at the prices which Frain is charging.

Nevertheless Malcolm Frain is today doing more to relieve unemployment than all the Federal, State, and Municipal agencies combined!

What is Frain's secret? Why is he hiring all these men? What is he doing with them?

Certainly his factories, even running three shifts as they are, are not large enough to absorb all the men whom he is hiring. The New Jersey State Commissioner of Labor refuses to give out any information as to the growth of Frain's employment, but this was to be expected in view of Frain's strangle-hold on the politics of that state.

Perhaps Malcolm Frain is shipping these thousands of new employes to his rubber forests, his banana plantations, and his oil fields; but, after the beating which his armed thugs gave our reporter yesterday (see picture), we are inclined to hazard the guess that there is something rotten about the whole performance, although we are not yet quite prepared to accuse him of being a second 'Bishop of Bingen'."

Cathcart whistled. "That comes darn close to libel!" he exclaimed.

Terro reached for the newspaper. "Hm! It's okeh with me anything they say about the boss. He's making plenty jack out of our labor, without him turning a hand."

"He's giving both of us jobs at good pay in the depths of a depression," Cathcart reminded him.

"Phooey!"

Terro spat on the floor, and began spelling out the words of the newspaper-item. When he reached the end, he asked, "Who's this Bishop of Bingen they're talking about?"

"Oh, a fellow years ago, who offered to put an end to proverty and unemployment. He herded all the paupers who answered his advertisement, into a hall. Then he burned the hall down over their heads, thereby making good his promise."

Suddenly Terro sat erect, whistled softly, and nudged Cathcart. "I'll take

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

a chance at being burned, if *that's* the torch." Terro nudged Cathcart again, and grimaced toward a slim girl in the black uniform of the Frain guards, who had just entered the waiting-room, and was mounting a platform at one end of the hall. On her black military cap was the word "INSPECTOR."

CATHCART studied the girl appraisingly. Strange that such a young girl should occupy such a high position in the ranks of the Frain organization! Strange even that one of her sex should be in uniform at all!

As Cathcart stared, his curiosity changed to admiration. The cool calm assurance of the girl intrigued him. And yet, for all her evident capability, she was not the mannish type. Not in the least! Not even boyish. Her features were pink-and-white and cameo-cut. Vagrant wisps of copper-gold hair strayed from beneath the rim of her military cap. Her lips, though firm, were delicately curved. Her figure, in spite of its alertness, was soft with feminine roundness.

Cathcart's keen gray eyes crinkled, and he nodded quietly to himself.

His thoughts were interrupted by the harsh voice of Terro, "Some baby, eh? The guy that gets her is going to have a soft job from then on. She's Frain's brat."

"So that is Donna Frain!" breathed Cathcart.

The girl herself now spoke in a clear cool voice, "Attention, please! You all know what you have been called here for—promotion to positions in one of the colonies—I am not at liberty to say which. Your pay will be at least twice what you are now getting. Those of you who are chosen for special work will receive even more. Your immediate family will accompany you. But you must sign up for five years."

Five years! Those words staggered Cathcart out of his rapt study of Donna Frain. Would the bare chance of being sent to the same colony as his brother, be worth the risk of being sent to the wrong colony and getting stuck there for five years?

Donna Frain went on, "The mails are very uncertain, and the operations of my father's colonies are rather secret; so—"

Yet, Cathcart had learned as much from that well-remembered letter in his breast pocket. Again he mused upon his brother's fate. Had Johnny and his fellow colonists been put to death, as the legendary Bishop of Bingen had killed the paupers to cure their poverty? Was that to be his own fate too, if he followed in his brother's footsteps? He turned his attention back to the flaming-haired girl, just in time to hear her conclude her address with the scarcely veiled threat, "If you do *not* accept, we may have to replace you with other prospective colonists. Remember: jobs are scarce these days. But if you are prepared to accept, or wish further information, please wait here until your name is called; then report to whatever inspector is in charge of the room indicated."

Cathcart's eyes followed her trim uniformed figure, as she walked briskly from the hall. Surely *she* would not be a party to any sinister trickery. What a girl! And yet how unattainable—the daughter of America's richest multimillionaire, and a high-ranking official in the organization in which Cathcart himself was a mere pawn.

Terro's rasping voice obtruded upon his revery with, "Did it ever occur to you what a sweet racket a fellow would have if he could only get something on Malcolm Frain?" Terro's narrow-eyed swarthy face was thrust close to Cathcart.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Accumulated irritation burst from Cathcart. "Did it ever occur to *you*," he snapped, "what a sweet chance you'd have of getting kicked out of the service, if someone got something on *you?*"

Just then he heard his own name being read off: "Robert Cathcart. Room 2." He got up and headed for the designated doorway.

IN the cubicle to which Door No. 2 admitted him, Inspector Dona Frain sat at a desk. Her military cap was off, exposing in its full glory the aureole of her burnished copper-gold hair. Her perfect features showed even more perfect at close scrutiny. Her jade-green eyes were cool and inscrutable.

Cathcart grinned ingratiatingly. Snapping into action in front of the desk, he began, "Miss Frain—"

"Address me as 'Inspector'!" she interrupted with dignity, although not unkindly. "Surely you have been long enough in the service to know that."

"Yes, Inspector," Cathcart replied with assumed meekness, but there was an irrepressible twinkle in his gray eyes.

"That's better." Donna Frain softened somewhat. "Well, Cathcart, how would you like the position of assistant chemist in one of our colonies?"

"Very much, Inspector! I had expected merely another trucking job." His gray eyes glowed at the thought of test-tubes and bunsen-burners again.

"You would have been chosen before," Donna Frain continued, "but we first had to check up and make certain that you had no newspaper connections. You know the rule against reporters?"

"Yes, Inspector."

"Well, our Secret Service has checked up on you, and has found, that you are not a newspaper-man. Also that you are a bachelor with no immediate relatives. You have received no mail, except technical chemical communications, since you have been with us. You have been a loyal and industrious member of the Frain organization. You can start for your new job this afternoon, if you wish."

"May I ask, Inspector, the nature of the chemical work which I am to undertake?"

"I suppose you are leading up to an inquiry as to where you are to be sent?" Her pretty features hardened. "Employes of Malcolm Frain ask no questions; and, when they do, they receive no answers. And now I shall ask *you* a question. Why did you not apply to us for work as a chemical engineer in the first place?"

"Hasn't your vaunted Secret Service found out that for you?" he countered, a bit maliciously.

"Cathcart!" she snapped. "Answer my question."

He did some quick thinking and finally decided to risk the truth. "Well, Miss, I'll be frank with you. I wanted to get sent to one of your colonies, and it seemed to me that I'd have a better chance as a mere laborer. I am trying to find my brother John, who disappeared to one of your colonies six months ago."

"Um! And it never occurred to you to come directly to Headquarters and ask about him?"

"I asked repeatedly, but was always given the same evasive answer. I wrote repeatedly to my brother, but never received a reply."

"Well, we'll find out right now." She pushed one of the red buttons of an inter-office switchbox on her desk, and lifted her telephone from its cradle. " Hello! Records Department? Inspector Donna Frain speaking. Send the dossier of John Cathcart down to Cubicle 2 in the waiting-room. Right away." She hung up, and turned to Bob Cathcart with just the trace of a smile

ELECTRONIC REPRODUCTION PROHIBITED

on her perfect features. "I rather think that we can assign you to the same colony as your brother."

He grinned back at her, and said with feeling, "Thank you very much, Inspector. And now may I ask *you* a question? Do you ever visit this colony?"

"What's that to you?"

"A workingman is always interested in what sort of superiors he works for." Cathcart's manner was respectful and disarming.

"I thought you were interested in finding your brother."

"I am. But five years is a long time to sign up for, without additional inducements."

She colored slightly. "Cathcart!"

A knock. The door opened, and a messenger came in, deposited a large manila envelope on the desk, and withdrew. Donna Frain covered her embarrassment by fumbling in the envelope, and studying its contents. Bob Cathcart continued to stand at attention; he knew when not to go too far.

"Yes," said Donna, returning the file to its container. "Your brother John, although formerly assigned to another of our colonies, is now at the one to which you are about to be sent. You will find him there at Town No. 13. Is that sufficient to you?"

"No," Cathcart replied in a quiet level voice. "You haven't yet answered my question. Shall I ever see you at that colony?" An amused smile hovered around the corners of his mouth.

Her own eyes fell. "I plan to visit that colony frequently," she said softly.

"Good!" Cathcart exulted. "Then I shall gladly enlist in your service."

CHAPTER II

Facilis Descensus Averni

DONNA Frain smiled up at him. "I think that we shall enjoy working together, Cathcart." Then, with a resumption of her crisp military manner, "Return to the Truck Lines barracks and pack at once. Report back here at four o'clock. Everything which you need for immediate use you had better carry, as it may be a month before your boxes will follow. We will notify your dispatcher of your transfer."

As Cathcart briskly saluted and strode from the cubicle, his pulses were racing. Undoubtedly because his quest for his brother was so nearly at an end, he told himself.

Terro was no longer seated on the bench outside in the waiting-room. Cathcart grinned. This meant either that that pest had been called into some other cubicle than Donna Frain's, or that he had gotten cold feet about being shipped off to an unknown destination. Either alternative was satisfactory to Cathcart.

Humming to himself, Cathcart ran down the steps of the garish Administration Building, and strode with the stream of dock-bound trucks to the barracks behind the huge terminal garage of the Frain Truck and Bus Lines.

On the stroke of four he was back at the Administration Building with two suitcases, and was herded into a hall with several hundred men, women, and children, laden with bags and bundles. Terro was among them; too bad! An Inspector checked off the names of the group. Then they were all marched out of the building, loaded into busses, and driven to the docks.

The men and women in the bus with Cathcart were fidgety and uneasy. They conversed in nervous whispers. They stared out of the windows at the passing buildings as though loath to leave these familiar scenes. Even the children, sensing the moods of their parents, were wide-eyed and subdued.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Several of the women were hunched and sobbing. One of them, seated next to Cathcart, timidly inquired, "You—you're in uniform—one of Mr. Frain's soldiers. You think it's all right, don't you? For us to go to the colonies, I mean."

Cathcart did his best to reassure her, but his words lacked conviction. After all, what did he himself know about their mysteriously concealed destination?

The busses drew up at a huge waterfront storehouse, a new one which had been in the process of construction when Cathcart had first come to work for the Frain Industries three months ago. Here, as the building had neared completion, Cathcart had brought truckload after truckload of fine silt from the laboratories of the Frain Chemical Foundation. As a chemist himself, he had wondered why and how all this dirt was being treated in the laboratories; but one learns in the service of Malcolm Frain not to ask questions.

At this building the five hundred colonists were now herded into a large vacant storeroom. Cathcart's insignia, a gold autowheel on each lapel, were removed, as were the insignia of such other colonists as wore the black uniform: cog-wheels for the factory employes, wings and propeller for the air lines, etc. All baggage was thoroughly searched. White brassards bearing the letter "C" in black, were pinned onto the arms of all the colonists.

"Do we wear this until we reach the colony?" Cathcart asked, as the guard was pinning his on.

The guard stared at him intently, suspiciously. "Are you trying to be funny?" he asked. "How long a trip do you think it is?"

"Well, how long is it?" Cathcart asked.

"None of your business! If you know what's good for you, you won't get too nosey."

Cathcart shrugged his broad shoulders and subsided.

HE glanced around the storeroom at the cowering colonists and the bustling officious guards. It was a bare concrete room, with sprinkler heads and water pipes overhead.

Names were now read off a list, Putorius Terro's among them, and about a hundred of the colonists were herded with their baggage into a large elevator, the doors of which slid soundlessly shut behind them.

Cathcart and the rest of the colonists waited, alert and nervous. About three-quarters of an hour elapsed; then the elevator doors opened, and a second batch of colonists were herded in.

Girls wearing the conventional Frain uniform now went among the remaining colonists distributing coffee and sandwiches. Three-quarters of an hour later another hundred colonists entered the elevator. Cathcart looked at his wristwatch; the time was seven o'clock. Evening shadows were falling; the lights were turned on in the huge storeroom.

As he waited, Cathcart studied the storeroom in which he stood. He remembered it well, for it was to this very room that he had trucked his loads of silt; only then there had been no elevator, not even an opening for an elevator shaft either up or down where the elevator doors now indicated one to be. He studied his fellow-colonists; the wait was getting on their nerves, men and women were pacing up and down, or nagging at each other, children were whining or snarling. Cathcart turned his thought to "Inspector" Donna Frain.

He was still day-dreaming about the

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

flaming-haired girl, when at eight-thirty it finally came his turn, as one of the last hundred. The elevator-cage into which they were led was lined with some smooth iridescent composition, without so much as a crack to give view of the shaft in which it hung. The doors slid shut, and then were wedged solidly in place by guards turning handwheels on the inside, as though the intention was to seal the elevator-car hermetically. Cathcart stared up at the top of the car, which was dotted with incandescent electric lights, interlaced with inert glass tubes.

He was vaguely attempting to puzzle out the purpose of these tubes, when his thoughts were interrupted by a woman's scream from the far side of the car: "Let me out! Where are you taking us?" She began to hammer on the walls with her hands.

One of the guards standing nearby seized the woman firmly, but not unkindly, and tried to quiet her; but as a result she

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

merely shrieked the louder. Her terror was contagious. Cathcart, sensing trouble, pushed his way toward her through the throng; but a husky man in overalls, evidently the woman's husband, reached the spot ahead of him and drove a hamlike fist to the guard's jaw. The guard went down.

INSTANTLY the whole elevator-car was in a turmoil. Women, and even some of the men, clamoring: "Let me out! Let me out!"

One of the guards grabbed Cathcart's elbow. "Hey, you! You look sane. Help

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

us quell this riot."

Clubs began to fly, cracking skulls. Cathcart flung a protective arm about an hysterical woman, drew her out of the melee, and shook her gently until her eyes lost their fixed stare and returned to normal. He slapped a man across the mouth, who was just about to scream.

The authoritative voice of the Corporal in charge of the guards sounded above the din: "Quiet! Quiet, youse! There is no way to get out of this room until we reach the colony, so youse might just as well shut up."

"Colony!" "Are we already on the way?" Those who were still on their feet gasped, and then subsided into complete and sodden silence. In the lull, Cathcart noted that the lights on the ceiling had gone out, and that some of the glass tubes were now glowing white.

Twenty minutes later the doors on the opposite side of the elevator swung open upon a concrete storeroom, very much like that from which they had entered the elevator. The Corporal in charge handed over a packet of papers to another Corporal who stood waiting with his own squad outside.

"Had a riot," the first Corporal laconically reported. "Tried to avoid it, but I had to keep order."

"Okeh," the other replied, unimpressed. "Hey there, you colonists, cart out the wounded." Then, turning to one of his men, "Count 'em, and then send to the hospital for the necessary number of stretchers."

Cathcart helped carry out and lay on the hard cold concrete floor those who had been battered, about twenty in number. Cathcart's jaw was set, and his gray eyes were slits. Although he realized that the guards had used their clubs only as a last resort, and that otherwise the colonists would have done more harm to themselves and each other than the guards had done; yet this brutality, necessary though it was, stirred up in him an instinctive resentment.

The doors of the elevator closed behind him with a fatalistic finality.

"Come on, the rest of you," commanded the new Corporal, "and make it snappy!"

Through a wide high doorway they were led out onto a driveway in the open. An indescribable air of unreality pervaded the place. Far above their heads a solid unmoving unruffled bank of white clouds shed a shadowless radiance as bright as the full glare of sunlight.

Flush behind the concrete storehouse from which they had just come, there rose a sheer cliff of rough white stone, to merge with the clouds above. In front of them, and away to the left, stretched a level plain of rich farming land, with here and there a village or a wood in the distance.

Nothing so very unusual, except the flat unchanging sky and the steep cliff; and yet none of the colors of the landscape were quite right, and there was an eerie soughing sound of wind overhead.

Off to the right, and also abutting the cliff, was a chromium and black office-building, reminiscent of Headquarters in Frain City, N. J., but smaller; and beyond it lay several substantial brick barracks, flanked by a sizeable small city.

According to Cathcart's wrist-watch, it was now 9:00 p. m., but the clock on the office-building said quarter past four! He set his own watch to the changed time.

THE Corporal marched them to the barracks, where the single men and women were assigned to neat but rather

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

bare rooms, and the families to suites. They were all instructed to stow their belongings and then report to the Administration Building in fifteen minutes, leaving the children behind. Nurses would take care of the children. There was no sign of the four instalments of colonists who had preceded them.

At the Administration Building, they were herded into a lecture room. As soon as they were comfortably seated, an Inspector with white hair and a jolly friendly face mounted the platform and addressed them.

"Welcome to Utopia," he began. "It is unfortunate that your entry into this new state of existence should have been marred by rioting, suppressed by what may seem to you to have been unnecessary severity. But order *must* be preserved in this colony, for your own good.

"You will find that life here among us is idyllic far beyond anything of which you have ever dreamed. Each adult individual will be permitted to pick out a city lot of land or a country tract. On this lot or tract he or she can build a home on easy terms. Homesteads can be exchanged, subject to just merely enough supervision to guarantee that no-one gets cheated. Your land can never be taken away by lawsuits, your pay cannot be garnisheed, and there are no taxes. There is no relief, for here everyone has a job.

"Medical attention is free, and one's pay continues indefinitely during any bona fide disability or illness. Education for the children is free, and they can continue in grammar school, high school, or college, as far as their abilities entitle them. You will all spend tonight in the barracks. Tomorrow you will be shipped to the scene of your new jobs. Any question?"

"How about churches?" asked one of the women.

"Each of the towns has at least one church," the Inspector replied, "and your places of work have been selected with a view to your expressed religious preferences."

"Where are we?" asked Cathcart.

"I was just coming to that. You are no longer in the world. You are not even on another planet of the solar system. You are not even in the same universe as that in which you were this morning. The cage which brought you here and which you thought was a mere elevator, is a status-changing machine, which has transported you into a new state of existence. Even time here has no relation to the time of the world from which you have come; for example, a person who left the world *before* you did, and who spent the same length of time getting here, may not yet have arrived." He paused dramatically.

Cathcart broke the awed silence by asking, "And conversely a person who has not yet left the earth may already be here?"

He had merely been trying to relieve his tenseness by a little humor, but to his horrified surprise the Inspector replied, "Exactly. So you can see why our newspapers here carry no news of contemporary events of the world. Events there are not contemporary."

Cathcart's jaw dropped. Hooey? And yet the Inspector had spoken with evident sincerity. Cathcart sat erect, and listened with fascinated intentness as the Inspector continued, "The universe to which you have been accustomed consists of specks of matter—stars and planets—floating in empty space. But this universe, where we now are, consists of holes in solid space."

"Sort of like a cheese," someone whispered behind Cathcart. One of the women colonists tittered nervously.

Meanwhile the Inspector was saying,

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"We are in one of these holes now. Other such holes have been discovered and colonized. This one is almost exactly thirty-nine and a half miles square, and its height has been estimated at about four miles. There are no seasons here. Every day is exactly twelve hours long, and so is every night. Rain falls only at night. A luminous glow takes the place of the sun. For convenience, we call thirty-two days a month, and twelve months a year. Any more questions?"

There were none. The audience was too dazed to ask any.

"You will now return to the barracks," the Inspector concluded. "Let me give you all a final caution. This entire world is governed by the will of Malcolm Frain, who is here known as 'the Boss'. You are no longer citizens of the United States of America. But, if you work faithfully and keep the peace, you will be more prosperous, better cared for, and happier than would have been possible in the old world which you have now left behind you—forever!"

A STUNNED silence greeted this last announcement.

Then a woman shrieked despairingly, "Forever?"

And a man cried out, "We signed up for only five years!"

An ominous rumble began to swell through the crowd, but it petered out again. The colonists were so stunned by what had gone before, as to be numb to this final blow.

The Inspector's round face was sympathetic and his voice was soothing, as he continued. "Dear friends, when you have been here with us for a little while, you will not wish to return to the earth. And you will appreciate the wisdom of the Boss in not letting you return. For, if stories were spread about this wonderful domain of his, he would be mobbed by millions, demanding to be sent here. This idyllic utopia is available only to picked individuals like yourselves. Now return to your lodgings."

As Cathcart filed out of the hall with the others, his mind was in a daze. All this preposterous talk about a new universe might be acceptable to the common run of these colonists; but Cathcart was a scientifically trained man, a chemist, and to him it was simply absurd!

Never in his life had he felt so cooped up, so utterly alone. Even the fact that his brother Johnny was living somewhere in this vast cavern, did not console him. So he stalked moodily to his room in the barracks, shut the door, sat down heavily on the sole chair, cupped his chin in his hand, and brooded.

After a while he got up, and stood by the window, staring out at the rolling landscape and the luminous silver sky. And, as he stared, the sky suddenly paled and darkened. Within a minute's time, night reigned outside, peppered with the twinkling lights of distant villages and scattered farms, although overhead there was a dense black void without a single star. Cathcart groped his way back through the darkness until he found and snapped-on the light-switch. Then he glanced at his wrist-watch—just a minute or two after six o'clock. A gong rang in the corridor. Cathcart opened his door and looked out. The corridor was lighted, and colonists were emerging from their rooms.

"What's up?" he asked of a freckle-faced young man about his own age who was coming down the hall.

"Grub, I guess," the other replied, holding out his hand and grinning engagingly, "Name's Mick—, I mean Paul Smith. What's yours?"

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"Robert Cathcart. Didn't I see you in the elevator?"

Smith's grin broadened. "Mustn't call it elevator. Teacher says it's an 'atom disintegrator'."

"If you mean the Inspector, I believe he called it a 'status-changing machine'."

Smith laughed. "I knew it was something quite impossible. Well, ain't we got fun! Are we all crazy, or what?"

"I guess 'what' is the answer," Cathcart soberly replied. *"Facilis descensus Averni."*

"Come again?"

"That's Latin. It's from Virgil. It's the first part of a famous quotation which goes: *'Easy is the descent into hell, but to retrace one's steps, and regain the world above, this is the difficulty, this the labor'."*

Smith whistled admiringly. "What a swell lead for a news story!"

"You aren't by any chance a reporter?"

Smith jumped guiltily. Then turned large blue eyes reproachfully at his accuser. "Why, you know perfectly well that 'the Boss' won't tolerate reporters."

JUST then they reached a pair of closed double doors surmounted by a sign reading: "DINING HALL." In front of the doors stood a group of about twenty men in black uniforms, with the red shoulder-insignia of the Colony Guards. One of these Cathcart recognized as Putorius Terro, the truck-driver who had been with him in New Jersey that very afternoon.

Terro broke away from the group and stepped over. "Hello!" he said truculently. "Where have you been all this while?"

"All this while?" Cathcart echoed. "What do you mean? I got here this afternoon."

"What held you up? I've been here four days." He stepped close to Cathcart, and thrust some folded papers into his hand, at the same time whispering in his ear, "Shove these into your pocket, and don't look at them until you get back to your room. They'll give you the low-down about this here new universe."

He moved away through the crowd of colonists.

"Pleasant looking friend you have," Smith remarked with a grimace. "What did he whisper in your ear?"

"Now I'm sure that you're a reporter," Cathcart countered evasively, thrusting the packet of papers into his breeches pocket.

Just then a disturbance in the crowd behind them attracted their attention. One of the colonists, a dark-complexioned man in overalls, was struggling in the hands of two of the guards.

"But I tella you, I no passa da pape," he cried.

"What's your name?" snapped one of the guards.

"Tony Angelino."

"Well, Tony, who passed the paper to you?"

Angelino looked wildly around for someone on whom to put the blame.

Terro stepped up to the group. "It was him there," he announced, pointing at Cathcart. "I saw him."

"Why, you—!" Cathcart indignantly began.

"Si, si!" exclaimed Tony, delighted at finding a scapegoat. "He passa me da pape."

Cathcart wheeled about in surprise to face his second accuser.

But now Terro cried, "Search him!" And Cathcart was promptly seized and held by two of the guards. Terro reached into Cathcart's pocket, and pulled out the package of papers. "Po-

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

litical leaflets! Populistic propaganda!" he triumphantly shouted.

"Why, you yourself—," Cathcart began. Then something stayed his tongue. Shrugging his broad shoulders resignedly, he lamely explained to his captors, "These papers are not mine. Someone thrust them into my pocket just now. I am a chemist, not a politician."

"A likely story," sneered a Sergeant, bustling up. "Come on, men, take him to Headquarters."

Cathcart turned to Smith, who had been watching the whole performance with a broad grin on his freckled Irish face. "Come along and vouch for me."

But Smith shook his head. "Sorry," he replied, "but I never saw you until a few moments ago."

"Better pinch him, too," the swarthy rat-faced Terro suggested. "He may be one of them Populists, too."

"Okey, you take him," the Sergeant commanded Terro.

So, protesting, Smith was dragged along.

Behind them the dining-room doors were just opening to admit the hungry colonists to the supper which the two prisoners were going to miss. The prisoners were escorted through the night to the Administration Building, and down into its basement where they were thrust into a cell.

CHAPTER III

Aren't We Still on Earth?

AREN'T WE STILL ON EARTH?

AS THE guards departed after locking the two of them in their cell, Smith turned reproachfully to Cathcart with "Nice mess you've got me into!" But there was a twinkle in his blue eyes which belied his tone of voice.

"Oho!" the other replied. "You don't seem particularly despondent. What's up?"

"Well," laughed Smith, "the truth is that I rather welcome this arrest. Maybe now I'll find out some of the things I came here to learn."

"Such as?"

"The location of Malcolm Frain's alleged colonies, and what becomes of the thousands of people who disappear into them."

"I'm on the same quest myself," Cathcart admitted, "but not for any newspaper."

"Who said anything about a newspaper?" Smith hotly retorted.

"Oh, I'll keep your secret."

"But I haven't any secret."

"All right, pal, you haven't any secret; and I have a selfish reason for not giving you away. I'm here looking for my brother, and I'd hate to have my quest interrupted by getting suspected of being a friend of a newshawk."

"Have it your own way," Smith retorted, grinning.

They lapsed into silence, Cathcart turning over in his mind the rapid succession of the events of the day, and wondering how Putorius Terro, who had left the earth only an hour or two ahead (although claiming to have arrived here four days ahead), had so speedily been made a regular member of the colony guards, and had become so soon involved in political propaganda. Why, indeed, should there be political propaganda in a utopia?

His thoughts were interrupted by the arrival of two guards, who unlocked the cell door, and commanded, "Hey, you in the black uniform, come with us."

"Good-bye," waved Smith, "Invite me to the hanging."

The two soldiers scowled at him, as they led Cathcart away, upstairs to an office on the ground floor, where a

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

stern-faced Inspector sat behind a desk. The two guards halted their prisoner in front of the desk.

"Name Cathcart?" snapped the official.

"Yes, Sir."

"Charged with possessing Populistic literature?"

"So I understand, but it was planted on me."

"A likely story! You were warned not to have anything to do with any investigations of the nature of this new universe, were you not?"

"So that's what those papers were about? I haven't read them yet."

"Answer my question!"

"No. No one warned me. The Inspector who lectured to us seemed quite willing to answer questions on the subject, and said nothing whatever about not pursuing the subject further."

"Well, you know the rule now. And the penalty is a year's hard labor on the roads. Who gave you the subversive literature which was found on you?"

Just then a guardsman bustled in and announced, "Important message, Sir," and then whispered something in the Inspector's ear. Cathcart caught ". . . message from outside . . . Boss's daughter . . ."

"Not so loud, you fool!"

More whispering. The Inspector's already severe face contorted into a scowl. Finally he turned to Cathcart with, "Young man, your explanation will be accepted—for the present." Then to one of the guards, "Take this fellow to Dr. Freundlich's house."

THE guard led Cathcart out into the starless tropic night, and down a brightly lighted street, past store windows and a motion picture theater, to a residence district, where he mounted the steps of a rather pretentious stone dwelling, and rang the doorbell. The maid who answered the door gasped, glanced hurriedly from the guard to Cathcart, fell back a step, and crossed herself.

"Is the Professor in?" the guard gruffly inquired.

"Y—yes, Sir. Won't you come in?"

"Come on, fellow," said the guard, striding into the house.

In the hallway stood a bullet-headed roly-poly man with closely cropped hair and thick-lensed glasses. His smooth features displayed concern, tinged with fear.

"What—what is it, officers?" he mildly inquired.

"Only one of us is an officer," snapped the guard. "This fellow here is paroled into your custody, Professor, by order of Inspector Jenks. Name—Cathcart. That's all." He turned and stamped out of the house.

"Ah, my friend, and what is your crime?" asked the little man, solicitously.

"As far as I can make out," Cathcart replied a bit doubtfully, "I am charged with possessing seditious literature, though I swear it was planted on me. I arrived in this colony only a few hours ago, and haven't had time enough to find out what to be seditious about, even if I wanted to. May I ask if you are Herr Doktor Emanuel K. Freundlich?"

"But yes, of course. You have heard of me, no? And do the people back on the earth still remember my work on atomic physics?"

"Why not? It is scarcely two months since your thesis was published, shortly after I started working for Frain."

"Ach, no. That was five years ago. My thesis, I mean. And you, you are not by any chance the young Robert Cathcart, Ph. D. from Johns Hopkins, who was working for the Chemical Foundation at about the same time?"

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"I am Robert Cathcart, and I worked for the Foundation, but not five years ago. Five years ago I was still at Harvard, and hadn't even started my post-graduate work at Johns Hopkins."

Dr. Freundlich took off his thick-lensed glasses and rubbed his watery blue eyes with a tired gesture. "Ach, it is that verdammte time—difference between your universe and ours!" he exclaimed in an exasperated tone. "What date was it when you left the earth?—But no, no," holding up one pudgy hand, "you must not answer me. It is verboten—prohibited—against the law. By the way, have you dined?"

"No," Cathcart replied, with a wry face. "They arrested me just as the dining-room doors were about to open."

The little professor beamed. "Ah, then you are just in time. Minna, O Minna! Set another place at the table. And now, my dear young friend, tell me all about your unfortunate experiences." He led his guest into a sitting room, and offered him a chair.

CATHCART began at the beginning —the disappearance of his brother.

"Ah," commented Dr. Freundlich, "as Omar says:

'Strange, is it not? that of the myriads who
Before us pass'd the door of Darkness through,
Not one returns to tell us of the Road,
Which to discover we must travel too.'

Well, let us hope that now you shall discover. Proceed."

So Cathcart continued with his story. Dr. Freundlich's kind face clouded at the account of the brutality in the elevator, or "status-changing machine," or whatever; and again at the planting of the documents on Cathcart, and his resulting arrest. But at the end of the story, Freundlich's expression changed to an inscrutable one which Cathcart found it hard to fathom.

"Ach, it does not hold water, quite. Too quickly you are arrested, and too soon released. I fear that you are an 'agent provocateur'—that you are sent to spy upon me. But you will find that old Herr Freundlich is thoroughly loyal to the Boss—thoroughly."

"Do they suspect everyone?" Cathcart indignantly exclaimed. "This place was described to me as a utopia. Certainly the outline of your laws and living conditions which the Inspector gave us in the brief lecture this afternoon sounded absolutely idyllic. Why then should there be communism and rebellion here?"

Freundlich peered inquiringly through his thick glasses. "When God made Paradise, he put a snake there too," he reminded.

Cathcart smiled. "So you blame Malcolm Frain for this unrest?"

"No, no! I did not mean that. Please! If you are going to arrest me, do so now, before my sister enters."

"I don't know what on earth you mean. I am not a spy—merely a colonist, hoping to learn from you what this is all about."

"You'll learn nothing from me! It is verboten. Ach, too late! Here comes my sister." A placid blonde Teutonic lady of uncertain age was entering the room. "Emily, this is young Dr. Cathcart, who has been assigned by the Boss to assist me in my laboratories."

Comprehension dawned in Cathcart's face. "Why, of course!" he exclaimed.

"And what else would you be here for, my young friend?" Freundlich blandly replied. "You see, Emily, he is a bit of a dummkopf. I shall have to teach him much."

"Do not make fun of the poor young

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

man, Emmanuel," his sister reproved him, as they walked into the dining-room.

At the meal the conversation soon developed into a cross-examination of the younger man as to developments in atomic physics in the alleged five years since Dr. Freundlich left the earth, the Herr Doktor expressing repeated surprise at the apparent total lack of progress during that period.

After dinner, Cathcart's belongings arrived by messenger, and he was shown to the guest-room of the Freundlichs.

In the morning his host beamingly informed him that word had arrived from Headquarters withdrawing all charges, and definitely assigning Cathcart as the doctor's assistant. "So perhaps you are not an 'agent provocateur,' after all."

But, in spite of this last remark, Dr. Freundlich continued to draw the line at any discussion of the nature of this new cellular universe in which the colony was supposed to constitute one of the holes.

CATHCART'S first day at his new job was spent in getting an advance in pay, buying some civilian clothes, learning the ropes of his host's laboratory, and picking up the threads of the various problems of industrial chemistry on which his host was engaged. But all the time, under the cover of an intent interest in what the roly-poly little Prussian was telling him, Cathcart's keen grey eyes were always searching for clues—for he felt instinctively that Dr. Freundlich was holding something back from him.

And Cathcart found clews aplenty. Among the laboratory equipment which showed signs of recent use were an Atwood's machine, a simple pendulum, a magnetic compass, and a Foucault pendulum, none of which had any possible application to any problem on which Dr. Freundlich had been supposed to be working. These set Cathcart to thinking, for every one of these four items could be used to ascertain some feature of the nature of the physical universe. But, inasmuch as the Herr Doktor had refused to talk on the subject, Cathcart merely grinned to himself and held his peace for the present.

The next day—to Cathcart's great surprise—was Sunday. He had left Frain City, New Jersey, in the "status changing machine," on a Monday at 8:30 p. m.; and, after a twenty minute trip, had arrived at this colony at 4:15 p. m.—on what day of the week or month, he had not thought to ask. And now, two days later, it was Sunday!

Oh, well. Perhaps a day off would give him his long-awaited chance to resume his search for his brother. He broached the matter to his host and hostess at breakfast. "Do we have to work today?"

"No."

"Then could it be arranged somehow for me to get to Town 13, to hunt for Johnny?"

"It could be, yah," dubiously. "We could hire a Frain V-8. All cars here belong to the government, but are very cheap to hire. A most excellent arrangement. But the office in Town 13 would not be open on a Sunday. So let us work this afternoon, and then take Monday afternoon for the trip, which is but thirty miles."

"Will tomorrow be Monday?" Cathcart asked.

"And why not?" Dr. Freundlich replied. Then, catching the twinkle in Cathcart's eye, "Ah, I see that you jest. But you must not jest, my young friend. It is verboten to poke fun at anything which the Boss has ordained."

"Meaning Malcolm Frain?"

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"Yes. But it is also verboten to call him anything other than 'The Boss' down here."

Miss Freundlich, a puzzled frown on her bland blonde face, interposed, "What else could day after today be than Monday?"

"Sh, Emily!" cautioned Dr. Freundlich. "Enough of this jesting. Our young friend might report us."

And, in spite of Cathcart's protestations that he was not a spy, the Freundlichs refused to discuss the matter further.

HE ATTENDED church with his hosts, devout Lutherans, and worked that afternoon and the next morning in the laboratory. Monday, right after lunch, the three of them set out in a hired car on an excellent concrete highway which wound across the level plain directly away from the high wall of white rock against which lay the capital city. Above them stretched an unbroken expanse of luminous pearly white clouds. The Herr Doktor drove.

Cathcart, sitting in the front seat beside him, stared aloft for some time; then said, "This sunless rainless sky gets me down. Doesn't it ever change?"

"Never except at night," Freundlich asserted.

Cathcart shuddered. "It gives me the creeps."

A bit further on, they came upon a detour sign and a gang of men in striped overalls, working with picks and shovels, and guarded by a squad of black-uniformed colony guards. As Freundlich was about to turn into the side road, the Corporal in charge looked up. It was Putorius Terro!

"Halt!" he shouted. Then to his squad, "Arrest that man! He's an escaped convict."

"Aber nein!" Dr. Freundlich exclaimed, as he stopped the car. His pale eyes flashed behind his thick-lensed glasses, and his short-cropped hair seemed to brittle belligerently. "He has been paroled to me."

"Have you the parole papers with you?"

"No, but —"

"Get out of the car, all three of you."

Cathcart's face was calm, but his eyes were dangerous. "This car is rented in my name, Terro," he said in level tones. "Would they let a criminal rent a state car?" He held out the rental slip.

"Oh, I beg your pardon, Bob," Terro apologized in an oily voice. "Come over here a minute." Then he whispered, "I was only doing my duty. Have to throw a bluff, you know. Thanks for not telling who planted them papers on you the other day. I shan't forget. How did you beat the rap?"

"I guess they needed a chemist more than they needed a man for the chain gang." Cathcart glanced around, and his eye fell on a small red-headed freckle-faced grinning convict. "Oh, hello, Smith."

"Real name's Mickey Foley," the convict replied, his grin broadening. "Reporter for the New York Daily Tabloid. They caught me red-handed. But civilians mustn't talk to prisoners, must they, Corporal?"

"No, you really shouldn't Bob," Terro confirmed. "Well, see you later."

Cathcart, Dr. Freundlich, and the latter's stolid blonde sister clambered back into the car, and were on their way.

"Who is your scowling Corporal friend?" Dr. Freundlich asked.

"His name is Putorius Terro. He—"

"Ah! Putorius is the Latin word for weasel, and Terro is the proprietary name for a certain brand of poison. He will bear watching."

"He's not to blame for his name, but

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

it certainly fits. I knew him quite well on earth; we were truck-drivers together. And, unless he has changed a lot, he is a radical and a trouble-maker."

THEIR course finally veered to the right, and another towering wall of their cellular world loomed ahead. Against it nestled a pretty little town of about two thousand inhabitants, and several factories. Dr. Freundlich stopped the car in the public square in front of a two-story brick building, flying the red "F" in a white circle on a blue field. No stars and stripes alongside of it as on earth, for here the Boss was supreme, and acknowledged no higher power.

Cathcart's heart sped up, as he and Dr. Freundlich mounted the steps. To the Sergeant at the desk inside, the Doctor said, "My young friend here is looking for his brother, named John Cathcart."

The Sergeant shook his head. "No such person since I've been here." He lumbered to his feet, and began pawing in a card-file. "Ah, here's his record. 'John Cathcart, agricultual foreman. Height, five feet eleven. Weight —."

"Skip it!" Cathcart impatiently cut in. "Where is he?"

"'— 160 pounds'," the unperturbed Sergeant continued. "'Eyes, blue. Hair, brown'."

"Skip it!"

The Sergeant looked up annoyedly. "All right. All right. Your brother was transferred here from another colony about three years ago, as head foreman of all the government farms of this district. He died two years ago. Tractor upset on him. Age 36."

"But it can't be!" Cathcart exclaimed. "Johnny was only 21 when he left the earth six months ago!"

"Does the description fit?" Dr. Freundlich asked, with kindly concern in his watery eyes.

"Yes, except his weight. He weighed only 132, the last time I saw him."

"But in fifteen years he could —"

"What do you mean? Fifteen years?"

"You forget the time-discrepancy."

So Johnny was dead. Cathcart blinked away a tear.

Then, straightening up, he resolutely announced, "Well, here ends my quest. Now to get back to the earth."

Dr. Freundlich gazed sadly at him. "My dear young friend, there is no going back."

"How absurd!" Cathcart exclaimed. "I made very clear, when I signed up, that I wanted merely to find my brother. Surely they won't—they can't —keep me here against my will."

"The Boss can and will do whatever he pleases. He is omnipotent in this, his colony."

"Then I say, damn Boss Frain!" For a moment Cathcart clenched his fists. But gradually the look of rage in his face changed to a frightened caged expression.

With a groan he sunk upon a chair, and took his face in his hands.

CHAPTER IV

The Nature of the Universe

A HAND was laid on his crumpled shoulders, and the kind voice of Dr. Freundlich said, "Careful, son! Careful! I know how you feel. But, in your sudden grief and despair, take care to utter no treason."

But it was not the doctor's words that brought Cathcart out of his daze. Rather it was the thought of the flaming Donna Frain, and her projected visits to this colony.

Cathcart shook himself together and

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

stood up. "Thank you, Sir." Then looking the Sergeant squarely in the eye, "I have no cause for treason.—Where is my brother buried?"

The official directed them to the local cemetery, where they purchased a wreath of flowers and placed it on Johnny's stone. As Cathcart knelt beside the grave, and read his brother's birth-date in outer world notation, he gave up all hope that this might be some ghastly mistake—some other John Cathcart than his brother. And also all hope of ever seeing the outer world again himself.

Emily Freundlich laid a motherly hand on Cathcart's shoulder. Dr. Freundlich, shaking his head sadly, began, " 'For some we loved, the loveliest and the best —' "

"Please don't," Cathcart begged.

As the three of them drove back together to the capital city, the little Prussian said, "My young friend, I no longer suspect you. Your grief and your horror have been too genuine. I trust you now. Let us cooperate and search for the secret key to this universe."

"Careful, Emmanuel!" his sister interposed. "This is treason."

Dr. Freundlich exploded, "Let it be treason, then! I believe we can trust Mr. Cathcart here. There may be some escape from Malcolm Frain, if we can once discover the secret of this cockeyed universe of his."

"I'm with you, Sir," Cathcart asserted. "What have you found out so far?"

"Um," Freundlich replied, pursing up his pudgy lips. "I have measured 'g,' the acceleration of gravity, with both Atwood's machine and a simple pendulum—a compound one, of course —and have obtained exactly the earth value: 32.16 feet per second per second. This would indicate that we are still on earth, in a cavern not very far below the surface, reached by the elevator which the authorities call a 'status-changing machine'."

But Cathcart objected. "You've been here for five years, you say, Doctor. Yet the warehouse from which we both came here, hadn't been built that far back. In fact, when I was carting silt into it in a motor-truck three months ago, there was not even a hole in the ground for an elevator shaft."

"You forget the time-discrepancy."

"Damn the time-discrepancy! And yet —. Hold on a minute. According to my reckoning, you were on earth two months ago; according to yours, you've been here five years. Terro preceded me here by only three hours and yet said that he had been here four days. My brother" — his voice caught — "grew fifteen years older in six months. I wonder if, after all, there may not be some fixed ratio, thirty to one, between our time and that of the real world."

"A mere coincidence, I'm afraid," said Freundlich, shaking his bullet head, "and I doubt if we are on the earth anyway, in spite of 'g'; for the magnetic compass indicates no north, and the plane of my Foucault pendulum shifts imperceptibly, instead of making one complete rotation each 24 hours as it ought to."*

"Just what *is* the rate of shift which you have observed here?"

"About half a degree an hour."

"There!" Cathcart exclaimed triumphantly. "That's the same thirty-

* The Foucault pendulum was invented by Jean Bernard Leon Foucault, a French physicist in 1851. By means of this instrument, he demonstrated the rotation of the earth on its axis by the diurnal rotation plane of oscillation of a long pendulum with a heavy weight. The following year he invented the gyroscope. He was one of the most brilliant of French physicists, and was first to prove that light travels slower in water than in air. He also invented the polarizing prism and discovered a means of giving the mirrors of reflecting telescopes the form of a spheroid or paraboloid of revolution.—Ed.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

to-one ratio between our time and earth time. The failure of the compass can perhaps be explained by iron deposits in the walls of this cavern. I believe that we're on the earth, with merely our time sped up in some manner."

But again Dr. Freundlich shook his round head. "If that were so," said he, "then 'g' would appear to have only one one-thousandth of the earth value, instead of *exactly* the earth value. Things when dropped would merely float down to the ground, instead of falling. A man could unbelievably jump a billion times as high as he can now. No, my young friend, we bark up the wrong tree, I'm afraid."

"And I'm afraid," his blonde sister cut in from the back seat, "that we'll all end up in jail if you two men don't stop discussing verboten matters!"

DURING the weeks that followed, they resumed the discussion from time to time. And, whenever they were sure not to be interrupted by anyone who knew enough physics to suspect them, they repeated and verified their experiments. Their regular—and supposedly only—work consisted mostly of dye-stuffs and military explosives. Why the military explosives, Cathcart often wondered? But, high though Dr. Freundlich stood in the councils of the Frain Industries, the doctor could not enlighten him.

Several months after his arrival, Cathcart suffered two annoyances. The first was to see the insufferable Putorius Terro, now promoted to Sergeant, escorting the flaming Donna Frain on the streets of the capital city. When Cathcart had stepped forward eagerly to greet her, he had imagined that for a moment her eyes too lit up. But swiftly they had become cold green and inscrutable, and she had snapped, "Cathcart, have a care! Civilian colonists do not speak to Inspectors unless spoken to."

Then she had passed on with head held high, and Sergeant Terro had grinned back possessively and tauntingly over his shoulder.

And that same day Cathcart had received a notice to don his uniform and report for military duty. Dr. Freundlich explained that every able-bodied male was liable to one week's duty as a soldier, out of every month.

"What I can't see," Cathcart exploded, "is why Malcolm Frain—I mean 'the Boss'—has to have all this army. It's many times more than enough to keep order here, and certainly there's no danger of any attack on this colony. Though I suppose the Boss *does* have a purpose in everything he does."

"It is not for us to question his purposes, my young friend," Freundlich sententiously replied. Then, glancing shrewdly at Cathcart, he added, "But I think that the real cause of your annoyance is not the military establishment of the Boss, but rather the military establishment of Boss's daughter. I've noted young Weasel Ant-poison about town here, and he seems to be a devil with the ladies."

Cathcart flushed. Then the color gradually drained from his cheeks, and his broad shoulders slumped.

Freundlich stepped over to his shelves of chemicals, took down a large glass jug and poured out a tumblerful of ruby colored liquids. "Here, drink this. It will make you feel better."

"What is it?"

"Wine."

"But I thought that liquor was forbidden by the Boss."

"It is. But one of the advantages of being a chemist is that I can make wine synthetically. Terro has irked you. Oh, many a Cup of this forbidden Wine

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

must drown the memory of that insolence'! as old Omar used to say."

Cathcart took the glass, and drained it.

Freundlich continued, "Now go to your drill; and, when you see Terro, face him with a smile. Meanwhile I'll putter around here, and complete our gyro-compass. If there's any north in this cellular world, a gyro-compass, being immune to iron deposits, ought to show it."

Cathcart put on the black uniform which he had worn as a truck-driver on earth, and reported at the headquarters building, where the red shoulder-insignia of the Colony Guards were sewed on, and he was put in a company of about a hundred green recruits, who were then marched to barracks in a nearby village.

THE first six days of the week were spent in drilling, rifle and revolver shooting, and instruction in military courtesies. But on the seventh day (the extra day of the eight day week, known as Frainday) they were given actual work to do, guarding road gangs. And among Cathcart's prisoners was Mickey Foley, alias Paul Smith, the tabloid reporter from New York.

"Well, well," exclaimed Foley, beaming, as he saw who had been placed over him. "If it isn't the criminal syndicalist! And to think that if it hadn't been for your good luck and my poor luck, I might be guarding you, as Damon Runyan said in 'Pilgrim's Progress.' Mind if I ask you a question?"

Cathcart grinned back. "If it isn't for newspaper purposes, nor treasonable."

"How would I be sending a story to my paper from here? I ask you!"

"Then it *is* treasonable?"

"Sure it's treasonable! How much does the surface of the earth curve?"

"About eight inches to a mile. But I can't see that there's anything treasonable about that."

"Well, stop me if you've heard this one. I've been helping the surveyors run levels for this road, and this world is practically flat. Wouldn't that make a hit with Bryan!"

"Bryan is dead."

"Well, so'll you be, if you're caught talking science with a newspaper man. But, all joking aside, I think there's a story in this, somehow."

"I wouldn't be surprised," Cathcart admitted, his gray eyes narrowing thoughtfully.

That evening, his tour of duty over, he reported this information to Dr. Freundlich, and the Herr Doktor reported in return that his gyro-compass had indicated as north the same direction as in the warehouse from which they had entered this cellular world, and also that the Foucault pendulum rotated at a rate of exactly 11° 15′ per day.

But the importance of these scientific developments was completely overshadowed by the political news of the past week. The object of the visit of Inspector Donna Frain to this colony, as the direct representative of her father, had become known. The circulating of leaflets criticizing the Boss had reached sudden and unexpected new heights, discontent was seething, and the flaming Donna had come to take personal charge of the espionage work of the dread Frain Secret Service. Her constant military escort was Sergeant Terro.

"I don't think that he's enough protection for her!" Cathcart declared.

"Meaning that you'd like to go along too?" asked Dr. Freundlich, smiling shrewdly.

"No. I don't butt in where I'm not wanted. But all the same, the Boss's

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

daughter ought to be guarded by a full squad of dependable men."

"To chaperone the Weasel?"

Cathcart made a wry face. "Maybe that's what I do mean, after all," he admitted. "So let's skip it."

"No," Freundlich objected. "I think that you are really sincere in your desire to protect the Boss's daughter. The Inspector in Charge here has tried to prevail on her to accept additional guards, but she has refused. They can't even give *secret* protection to her, for she herself commands the Secret Service. So I suggest that you trail the two of them, not to spy upon your enemy, but rather to protect your friend. You have my permission to leave your laboratory-work, for that purpose."

THE next day was Sunday. Donna Frain, accompanied by the inevitable Terro, attended Episcopal services; and Robert Cathcart, with the full approval of the Freundlichs, also went to the Episcopal Cathedral, instead of to the Lutheran church with his host and hostess.

After the service, Donna and her escort set out on foot for the city limits, and Cathcart trailed them. The couple entered a dense thicket of five-year-old pines and hardwood along the sheer face of the barrier cliff, and Cathcart continued to follow them. They seemed to be rather aimlessly following a winding trail, rather than to be bound for any particular destination.

Finally the path widened out into a little clearing, carpeted with soft club moss. Donna and the Sergeant sat down together on the moss. Cathcart hid behind a bush at the edge of the wood, and peered out.

He was rapidly becoming more and more ashamed of his role of spy, as he gradually admitted to himself that, after all, his major interest was to protect Donna Frain from Putorius Terro, rather than from the enemies of the realm.

But thus far Terro did not appear to be acting in any way inconsistent with his apparent position as bodyguard and servitor to the daughter of the Boss. Only the burning light in Terro's eyes, as they devoured the lovely Donna, belied his apparent subordinate position. Cathcart turned his head away, to blot out the unwelcome sight.

Suddenly Donna screamed!

Cathcart leaped to his feet, and dashed out into the clearing.

From the woods on the opposite side, straight toward Donna and Terro, there was rushing a fearsome many-legged silver-colored jointed beast, about forty feet in length and five feet high. Its motion was a cross between a gallop and a wriggle, as it covered the ground with prodigious speed.

Donna and Terro were both now on their feet, Terro adding his frightened yell to Donna's shrieks, as he crashed blindly into her in his frantic rush for safety.

Terro's blind rush pushed Donna out of the path of the charging monstrosity. Both he and she stumbled and fell headlong into the soft moss. The beast kept on. And, unarmed though Cathcart was, he ran to meet it.

But it never reached him. Suddenly it halted, shuddered, and settled heavily to the ground, as though machinery within it had run down. Cathcart's rush carried him on, to bump against the huge inert remains. It felt soft and crinkly, like tinsel over papier-mache. His hands and the front of his suit, where he had touched the creature, were covered with silver dust, as if from poorly applied aluminum paint. Could it be that this beast, which a moment before had seemed to be a menacing

CONSECRATED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

monstrosity, was nothing more than a mere carnival creation impelled by machinery? But no; it had been too real for that.

These thoughts flashed through Cathcart's mind in an instant; his real concern was for Donna Frain. Turning quickly, he picked her up from where she had fallen. "Are you all right?" he asked.

Still quivering, she clung to him. A fierce joy surged through him, as he held her close. She looked up into his eyes for a brief instant, and seemed content.

"Hi, there!" shouted Terro, scrambling to his feet.

Cathcart released the girl, flushed guiltily, and clenched his fists.

BUT DONNA had regained her poise. With gratitude shining in her green eyes—warm green now, rather than their usual jade inscrutability, she exclaimed, "You two men have saved my life! You, Sergeant Terro, pushed me out of the path of the charging monster just in time; and you, Private Cathcart, killed the monster. This will go well on the records of both of you."

Cathcart's eyes flashed, as he opened his mouth to protest that Terro had run like a coward and had merely accidentally stumbled against Donna in his mad flight. But, before the words came out, he clamped his jaws together again, grinned irritatingly, and held up his right arm in salute.

"A pleasure to be of service, Inspector," he said.

Putorius Terro was not so tactful. "Cathcart didn't even touch the beast," he blurted out.

"No?" asked Cathcart, amusement glinting in his gray eyes, as he spread his arms wide, disclosing the silver powder meared all over the front of him. Then, with a sudden contempt for letting himself be put in the same class as his impostor rival, "The Sergeant speaks the truth. I admit to a foolhardy attempt to kill the monster with my bare hands, but apparently the dying was the monster's own idea."

Donna imperiously shook her flaming head. "You are too modest, Private Cathcart," she declared. "I saw what I saw. But now we have a problem on our hands. I must pledge you two men to secrecy, for—for—for it would never do for the colonists to know that this utopia has harbored a nightmare creature like this. Cathcart, stay here in this clearing and see that no one comes near the body. You, Sergeant, —"

"But, Inspector," Terro interrupted, "I tell you —. Well, anyway, what was Cathcart doing trailing us? Ask him that."

"I will attend to *that* question later! But, as I was saying —."

"You might just as well hear the answer now," Cathcart cut in. "I was trailing you because I feared that there might be Populists in this wood, and I felt that the daughter of the Boss was entitled to more of a body-guard than just one Sergeant."

"Why you —!" Terro began.

"Silence!" Donna snapped. "Sergeant, come with me. You will guard the entrance to the wood, while I go to get additional troops, to throw a cordon around the place. Also for a truck, to remove the carcass."

She and Terro started off down the trail together toward town. Cathcart grinned after them, and Terro flashed back at him a black look which gradually merged into one of triumph.

Cathcart shrugged his broad shoulders; then turned his attention to the dead silver-colored monster. Where had he seen something like this before? In carnivals? At the Mardi Gras? No.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

That was not it. Some obscure thought clamored for entrance at the threshold of his mind.

He walked around the carcass, kicking it once or twice. Silver dust powdered his shoe. He noted a light silver trail on the moss and grass, leading back the way the beast had come.

SNAPPING his fingers with sudden resolution, he dog-trotted down this back trail. A few hundred yards led him to the barrier wall of this pocket in solid space, which housed the colony. The wall towered above him, gray-white and flat and sheer, clear to the clouds, and at its foot flanked with bushes and climbing vines. Into a thicket led the silver trail; and, as Cathcart parted the shrubbery with his hands, he saw that the cliff-face beyond was riven—a jagged crack some twenty feet high, and five or six feet wide at the base. This then was the lair from which the silver beast had emerged.

On inspecting this opening more carefully, Cathcart saw that its faint pencilled line extended up the barrier until lost to view in the mists above. At its base it had forked, and the triangular piece of rock formed by the fork had been forced out and was lying in the bushes to one side.

Cathcart peered into the dark and cavernous hole. Did its blackness hide other silver beasts? Well, he must take the chance. For if, as he had been told by the lecturer on his first day in this colony, it was true that this new world was a part of a cellular universe, might not this cave lead to another cell? Perhaps he, Robert Cathcart, might discover new worlds for Malcolm Frain to conquer, and thus gain credit—perhaps even freedom from his imprisonment! At least, he might possibly learn something of interest and assistance to the scientific speculations of himself and Dr. Freundlich. So, taking a paper of matches from his pocket, he lit one, and groped his way in.

The rock underfoot was jagged and rough, with many projections man-high—stalagmites, it seemed. He had progressed only about a hundred yards when half his matches gave out; so he retraced his steps. Then ran back through the woods to the clearing, lest Donna Frain return in time to discover that he had been exploring.

Just in time, too, for a few minutes later Putorius Terro emerged from the woods on the side toward the town.

"Where's the boss?" Cathcart innocently asked, but his gray eyes held hidden amusement.

"You mean the Boss's daughter."

"Have it your own way," Cathcart shrugged.

"She's bringing a truck. I have posted troops around the wood. No one but us three is to come in here, or know of this. And now, Cathcart, before she gets here, I want to tell you a thing or two. Lay off of Donna Frain and me. If you poke your grinning face into my affairs again, I'll frame you and get you put onto road-work, or perhaps something worse. I have considerable influence with the Administration —"

"So I see."

" — and in other quarters," Terro added meaningly. "So watch out."

"Terro, I don't altogether trust your loyalty to the Boss, and —. Sh! Here comes Inspector Donna."

A large auto-truck crashed its way into the clearing. Donna clambered out of the driver's seat, and directed the two men to take axes, shovels and tarpaulins out of the back, chop up the carcass, load the pieces aboard, and cover the mess with tarpaulins.

The pieces were singularly light and pithy, but were real insect flesh.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Watching his opportunity, Cathcart found a large electric flashlight in a pocket of one of the doors of the truck, and unseen dropped it into the tall grass.

When the entire mess had been loaded aboard, Donna turned the truck around and drove it out of the woods, followed by Terro and Cathcart on foot.

"Remember what I warned you," said Terro in a low voice.

"The same goes for you." Cathcart replied.

Upon reaching the open fields beyond the woods, Donna ordered Sergeant Terro to gather up the guards, while she herself set out alone for Headquarters with the truck.

"Mind you, both of you, not a word of this episode to anyone!" was her parting admonition.

CATHCART found himself alone. Now was his chance! Rushing back into the wood, he retrieved the flashlight from the tall grass, and hurried to the crack in the barrier cliff.

When well inside the cavern, he rayed his light around him. Far above him towered the crack, which widened out considerably within the face of the wall.

Slowly and painfully he picked his way inward. The floor became more and more rough, the cavern wider and wider, although not too wide for the beam of his lamp to reach both sides.

At last, after about a mile of clambering around and over stalagmites, a billowy black curtain blocked the entire passage.

There was something unreal, unsubstantial, intangible about that curtain! The ray of Cathcart's electric torch, when played upon it, stopped abruptly, but neither penetrated nor illumined it. He slowly approached it, and reached out his hand to touch it. His hand passed through it, into it, without feeling it. It was a black mist, light-absorbing! Cathcart recoiled.

But, though impervious to light, the black mist was not impervious to sound. From beyond it Cathcart could hear a slow, almost musical, deep rumble, which rose and fell in uneven waves.

As he stood irresolute in the face of this new phenomenon, he noticed a slightly red tinge to the beam of his electric flash—the batteries had begun to fail. Turning panic-stricken, he ran stumbling back along the way that he had come.

Paler and redder grew the glow of his lamp. He switched it off, and staggered a few steps in jet black darkness. Then hurriedly switched it on again, lest he get turned around.

For seeming hours this continued, until the dull red glow became practically useless. A long wait was indicated, in the forlorn hope that the battery might pick up again. But in his next short grope-ahead, he crashed full into a pillar of stone, and the electric torch was dashed from his grasp.

On hands and knees he felt about for it; and, just as he was despairing, found it again. But, when he pressed the button, no light came. He ran his fingers all over it—the lens was gone, and the bulb smashed.

With a wild moan he sprang to his feet. Then halted.

"You fool!" he cried aloud. "No panic now!"

But which way was out? While groping for the torch, he had lost all sense of direction!

CHAPTER V

The World of the Giants

LOST! Without a light, in the jet black darkness of the caverns of

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

the silver beast! Without even an idea of which direction was out!

Cathcart sat heavily down on a rounded stalagmite, felt of his pulse, and forced himself to wait, to sit motionless, until his panic ebbed, and the beat of his racing heart became normal. He must think! Think calmly! There should be some means—

From far far off came the hollow reverberating sound of a distant factory whistle—the five o'clock closing whistle of one of Malcom Frain's industries.

Instantly Cathcart was on his feet again, stumbling, groping, at right angles to the source of the sound. Before it wholly died away he had reached the wall of the cave, and had turned and started to edge along the wall toward the sound.

The wall was jagged. Often huge stalagmites blocked his way, causing him to detour from the precious guiding wall. But always, after avoiding such an obstacle, he managed to find his way—half panicked—back to the wall again, and grope on.

And then finally dim daylight ahead! Gradually the light grew brighter as Cathcart's progress became more and more rapid, until suddenly the light paled and vanished, and jet blackness reigned once more.

Six o'clock!

Cathcart groped his way to the side of the cave again. But could he be sure that he had not become turned around? To his sense of direction it seemed certain that he had, that he was now headed back toward the interior of the cave. Every instinct counseled him to reverse; but he mastered his instinct, and kept on.

And then, just as he was about to falter, irresolute, a branch snapped in his face. He was in bushes. He was out of the cavern!

He found the clearing, stumbled across it, and groped about the woods on the further side, until his feet felt the trail.

A few minutes later he was in the open again, starless sky overhead, but with the twinkling lights of isolated farmhouses all about him, and far ahead a glow in the sky which indicated the headquarters city of the colony.

He reached the city, and at last the house of Herr Doktor Freundlich, without further event.

The genial Freundlich and his blonde sister had been worried for Cathcart, and received him with joy and relief.

"Lost in the woods," was all that Cathcart would say at first, but after he had eaten, and Emily Freundlich and the fluttery maid, Minna, had withdrawn, he told Dr. Freundlich what had happened.

THE two men were seated together in the privacy of the study.

"Ach, I cannot understand it," muttered Freundlich. "It is a door to which I find no key."

But Cathcart's attention had suddenly been attracted elsewhere. "Look, Doktor!" he exclaimed, his eyes riveted upon a little bug, half an inch long, scuttling across one corner of the desk; a tiny jointed insect with many legs, its body silver-colored.

"A silver-fish. So?" Then abruptly something gleamed in the pale eyes of Freundlich's round face. "Ach, yah! A silver-fish! The beast of the cave! The same! But why should Malcolm Frain breed a silver-fish one thousand times its natural size?"

"Dr. Freundlich," said Cathcart levelly. "That cave is not an accidental rift. It was planned. Beyond the intangible black curtain at its further end there lies something which may give us a clue to all this mystery. No wonder Donna Frain wanted the monster dis-

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

posed of in secrecy. She was afraid that its accidental escape from whatever lies beyond that cave might give away the whole nature of her father's universe!" He jumped to his feet.

"My young friend," Freundlich replied, his pale eyes glowing. "We must go at once to that cave, with adequate lights, and explore it together. And we must take with us a phonograph to record those sounds which you heard."

Cathcart sat heavily down again. "I could not find that wood in the dark."

Freundlich shrugged his fat little shoulders. "And I too must wait for morning. We cannot obtain a recording phonograph at this hour of night."

Cathcart went to bed early, thoroughly tired out by his day's adventures.

Early next morning at the Frain laboratories, he and Dr. Freundlich requisitioned a phonograph—an ordinary one, inasmuch as there was none in the colony adapted to recording. But it was an easy matter for the two friends to modify a spare sound-box into one which would record rather than reproduce, and to fashion and groove some disks of soft wax. By working with feverish haste, they were able to complete their work before noon.

"And now," Freundlich announced, relaxing, "how about knocking off for the rest of the day and having a picnic? We can hire a government car."

"What!" Cathcart exclaimed. "Waste valuable time picnicking?"

"Well," said Freundlich, shrugging and beaming. "I rather thought that a certain clearing in a certain wood would be an ideal spot for lunch.

"A little cave-mouth hidden by the bough,
A phonograph, some unscored disks, and thou
Beside me listening to the rumbling—"

"Okeh. I catch on. But how will the authorities like our quitting work without permission?"

Freundlich replied, "I am sufficiently high in the organization, so that my time is my own."

Hiding the phonograph in the bottom of a large hamper of lunch, they set out in a Frain V-8 for the wood of the silver beast.

THEY were just unpacking their lunch in the clearing when down the trail came Sergeant Terro and a squad of soldiers.

"Aha!" Terro exclaimed, his black eyebrows lifting. "So it's you, Private Cathcart? I saw an auto headed in here, and hurried over to investigate. You're not, by any chance—?"

"Why, Sergeant!" Dr. Freundlich interrupted, looking up with an expression of complete innocence on his pudgy face. "This wood is not verboten, it it? Dr. Cathcart told me—"

"Cathcart!" Terro snapped. "You—"

Cathcart rushed over and seized the Sergeant by the arm. "Easy there!" he whispered. "Be careful what you say. Dr. Freundlich knows nothing—doesn't even suspect anything. He asked me where I was yesterday, so I brought him here just to *keep* him from suspecting." Then raising his voice, ostensibly for the purpose of letting Freundlich hear, "Get away with you and leave us alone, or I'll put in a complaint to the Boss. This wood is not posted."

Terro winked, and a grin spread over his swarthy face. "I get you, pal," he said, as he withdrew with his troops.

Cathcart returned to his companion. "Weasel-Face trusts me as far as you can throw a bull by the tail," he reported, "which is considerably further than I trust him. He'll stick around, out of sight. We'll merely picnic."

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

So they merely picnicked. After eating, they dug a hole and buried the papers and refuse. And with it they buried their recording apparatus. Then they returned to the city in their car.

At the laboratory that afternoon they found a black-uniformed Inspector awaiting them, restlessly pacing up and down.

"Where have you been?" the man snapped. "There is immediate need of you. One of the prisoners who has been running road-levels near here has escaped. Of course, we'll catch him and punish him, for no one can flout the Boss with impunity. But in the meantime this particular road-gang is being held up. The foreman suggested that perhaps one of you scientists might possibly be practical enough to be able to run a surveyor's level. Can you?"

"Why, certainly," Freundlich replied with surprising alacrity. "We both can. We'll be glad to."

"Only one is needed," the Inspector snapped.

"Ah, my friend," Freundlich apologized. "We scientists would operate the instrument slightly differently from a civil engineer—would take notes in our own way—although the final results would be intelligible to your surveyors. So I am very much afraid, Sir, that you will have to put up with the *two* of us."

"All right! All right! Come along."

Dr. Freundlich turned to his assistant, and screwed up that side of his face furthest from the official into a laborious wink. Cathcart shook his head in perplexity.

A government car was waiting outside. Dr. Freundlich sat with the driver; Cathcart with the Inspector in the rear seat.

Apparently just to make conversation, Cathcart asked, "You say one of the road gang escaped?"

"Yes."

"Are such escapes frequent?"

"Altogether too much so, recently."

"But of course you'll catch them all eventually?"

"Certainly. Where could they go? They can't get out of the colony."

Cathcart laughed good-humoredly. "Of course not. And why should anyone want to leave? I like it here. Oh, by the way, who was the level-operator who escaped?"

"Fellow named Foley.

"Um."

The Inspector faced Cathcart, and eyed him sharply. "Know the fellow?" he snapped.

"Oh, yes," Cathcart replied airily. "He came down here in the same batch with me. Newspaper reporter, I believe. I never knew him on earth." But to himself he addead, "I wonder what Micky is up to. Something hair-brained, I'll bet."

THE road gang where they were to work was not far from the headquarters city. As Dr. Freundlich was introduced to the foreman and took over the leveling instrument, he said in a somewhat apologetic tone, "Mind if I and my young friend do a bit of practicing and checking before we start on the regular work? We are laboratory men, not surveyors, you know."

The foreman nodded his assent, and Freundlich and Cathcart took the instrument off onto a side road.

"Fortunately, it's a Y-level, rather than a dumpy, and thus quicker to adjust," Dr. Freundlich announced to his colleague. "We've got to work fast."

"At what?"

"I'm going to find out definitely whether this world is flat or curved."

He set up the machine, took a few sights through it, and completed his adjustment. Then sent Cathcart far down the road with the rod. For half an hour

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

they sighted, changed position, sighted, and computed.

Then Dr. Freundlich perplexedly announced, "Your young newspaper friend Mickey Foley had the right hunch. This earth is absolutely flat—that is to say insofar as anything short of absolute laboratory precision can measure it. And how can anyone expect us to get laboratory precision with a Y-level on a country road?"

"No one does expect you even to try, Doctor," Cathcart laughed. "In fact, if anyone suspected you of trying, you'd be tried yourself—for treason to Malcolm Frain."

The rest of the afternoon, until the closing whistle, they devoted to legitimate road surveying. But that evening, under cover of darkness, they sneaked out to the wood where they had picnicked that noon. With them they carried two flashlights, plenty of spare batteries, and two empty briefcases. They went on foot, rather than by car, so as to avoid detection.

Arriving at the clearing without event, they dug up their recording phonograph and blank records, and carried them into the cave.

"I hope this gets us somewhere," Cathcart doubtfully remarked.

"It may be the clue, as old Omar says, 'Could you but find it—to the Treasure-house, and peradventure to the Master too.'"

"Meaning Boss Frain?"

"Yes, though I rather suspect that you had rather it led to Boss Frain's daughter. Eh, my young friend?"

"Donna means nothing to me," Cathcart muttered embarrassedly.

"Ah! So you call her 'Donna', eh? Well, as you would say, let's skip it. Come."

CATHCART was surprised to find how much more quickly he traversed the one-mile path amid the towering stalagmites this time than the time before. Soon they stood before the wavering curtain of impenetrable darkness at the inner end of the cave.

Dr. Freundlich gingerly approached first one side of the black mist and then the other, and each time ran his hands around the edge into the darkness. "A flat barrier wall, as at our end of the cave. Another pocket in space, like our colony. But this darkness puzzles me—doubtless some gas impenetrable to our octave of light."

He took from his pocket several vacuum bottles, held them through the wavering veil, removed the stopples and let them fill, then examined them by the light of his torch—their contents proved impervious to its light. "Um!" he remarked, replacing them in his pocket.

Far out above them came the mysterious rhythmic booming which Cathcart had heard before. They assembled their phonograph and recorded all their records. Then repacked their apparatus, and thoughtfully threaded their way back through the cave.

"You know, Cathcart," ruminated Dr. Freundlich, "I've been thinking. Did you ever notice the electric lights used in this colony? These flashlights for example."

"No, not particularly. Why?"

"Neither did I particularly, either," Freundlich enigmatically replied. "But I'm going to, as soon as I get home. For I've an idea." But not a word more would he say on the subject.

On emerging from the cave, they buried the phonograph, and carried the records back with them in their two briefcases. But, instead of going home, they went directly to the laboratories. Dr. Freundlich often worked there late at night without being questioned; and tonight, if questioned, he would have

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

an added excuse—the interruption caused by the afternoon's surveying.

First he set about to analyze the gas from one of the electric bulbs, and discovered it to be an obscure mixture, theoretically impervious to any light except extreme ultra-violet several octaves above normal. "And yet it permits the passage of the light which we see. Um. Now I begin to wonder about the photographic plates which are used down here. I know that the emulsion is one of the Boss's secrets. Photographic plates and electric bulbs are both made in the Frain Optical Works, over at the other end of the colony. The factory is guarded with great secrecy, and even I, a Frain scientist, have never been permitted to enter it. Tomorrow I shall make me some photographic plates of my own."

"What have you in mind, Sir?"

"Some old Roman philosopher once said, 'Never disclose your plans until after they have been carried out.' "

"What! Quoting someone other than Omar?"

"Now you run along and get some sleep. Tomorrow you can analyze these samples which I took of the veil of darkness."

Most of the next day in the laboratories the two men worked in silence and at separate benches.

Finally Cathcart announced, "This black stuff seems to react as ordinary air. Nothing else in it. I can't understand."

"Maybe we shall know tonight," Freundlich enigmatically replied.

That evening they again set out for the cave, with more blank records and Dr. Freundlich's camera; and, while Cathcart recorded the mysterious rumbling sounds, the doctor snapped plate after plate at the pulsating black void.

On their return to town, Freundlich insisted on their going to bed; but the next morning when they reached the laboratory he confessed to Cathcart that he himself had spent the balance of the night developing his plates. "And look what they show!" he exclaimed with suppressed excitement.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

electroplating a negative film of metal on them, backing these metal films with cement, and then casting positive reproducing records from the moulds.

At supper Emily Freundlich informed them that the capital was seething. Wholesale escapes of roadgang prisoners had occurred, troops were now scouring the colony in search of the fugitives, and a stop had been put temporarily to the shipment of further colonists from the earth. But Dr. Freundlich and Robert Cathcart were too excited by their discovery of the world of the giants, to be affected by her agitation, or even to grasp fully the purport of what she was saying.

That evening they again set forth for the cave, this time carrying merely the camera and a large supply of plates.

As they walked along together, Dr. Freundlich asked, "Do you realize what those photographs prove?"

"That one of the cells of this cock-eyed universe of Malcolm Frain is inhabited by giants? Anything more?"

"Yes. That the air of that cell is normal air, and that *our* air here is so peculiarly constituted as to be impervious to light within the range of human vision."

"You mean just the opposite, don't you?"

"No, I don't. That picture of the giants was taken on plates sensitive to normal light. I have reason to believe that our light here is four or five octaves into the ultra-violet."

"But how can we see it then? And why doesn't it kill us?"

"It actually was deadly to the huge silver-fish from the giant world. In my opinion, light killed him. But the status-changing machine which brought us here has probably changed our physical characteristics in some way so that we can see only ultra-violet rays, and so that those rays are harmless to us."

"But why?"

"As Omar says, 'That is the door to which I found no key.'".

They walked in silence the rest of the way. Arrived at the cave in the wood, they entered it as before.

But only a short distance in, they found the way blocked by a pool of water on the floor, and beyond that a solid wall of damp rough stone!

"It looks to me," Dr. Freundlich remarked, "as though our giant friends had plastered up this little crack at the base of the wall of their world, so as to keep their little silver-fishes from escaping into our world."

"Considerate of them, I'm sure! Well, what do we do now?"

"Nothing, my young friend, except to return home and think. We have plenty to think about."

THE next morning, long before the time for the customary rising

LICENSED TO MIZAR
ELECTRONIC REPRODUCTION PROHIBITED

whistle, they were awakened by bugle notes, an unusual occurrence. Troops were marching in the streets. Officers were knocking on the doors, distributing handbills which proclaimed martial law throughout the colony and called all able-bodied men to the colors.

Wrapped up in the official notice was a crudely printed *un*official one which read:

FREEMEN ARISE!

Cast off your shackles and defy Malcolm Frain. He dare not retaliate, for we hold his daughter Donna as a hostage. If enough of us revolt, we can compel the Boss to send us all back to the Earth, where we belong.

Further particulars will be published later. Pass this flier on to a friend.

Down with Boss Frain!

THE POPULISTS.

Cathcart's jaw dropped and his eyes widened as he read it. Donna kidnapped! Undoubtedly by that unprincipled scoundrel, Terro!

Frantically he slipped into some clothes and was about to rush to Headquarters with the handbill, when Dr. Freundlich stopped him with, "You go to the barracks and report for duty, or you'll get into trouble. Let me take this flier to the authorities."

At the barracks Cathcart found a milling throng of excited civilians, being issued uniforms and equipment. Everything was in confusion, officers shouting orders, and no one paying very much attention.

Someone thrust another handbill at Cathcart: an appeal to the soldiery to kill their officers and join the revolution. He hastened to an Inspector and handed over the paper. He had been bit once before by being caught with Populist literature in his possession, and didn't intend to be caught that way again.

Even this time he was immediately taken into custody and held for questioning. The whole Administration seemed to be in a panic.

Cathcart easily convinced his inquisitors that he knew nothing of the source of the circular. And furthermore he made a valuable contribution to the situation; for, when they had finished interrogating him, he in turn asked a question, "Has anyone seen Sergeant Terro?"

No, no one had. So Cathcart told them all that he knew of the man: of his treasonable utterances on Earth the day of their departure for this colony; of the fact that it had been Terro who had slipped him the Populist literature which had been found in his pocket the ray of his arrival; and of Terro's several subversive statements to him since. But Cathcart still obeyed Donna Frain's orders to keep quiet about the giant insect in the wood.

"Why did you not report Terro's treason at once to the authorities?" the Inspector asked him.

Cathcart shrugged his broad shoulders. "Who would have believed me? Terro stood high with the Administration. He was personal bodyguard to Donna—I mean, to Inspector Frain. Why should I stick my neck out. But I did continue to spy upon him, whenever I was off duty. Dr. Freundlich will—"

He was about to say that Freundlich would confirm his story about asking time off to spy upon Putorius Terro; but suddenly he realized that this would implicate Dr. Freundlich. So he finished lamely, "He will confirm that I have asked for a lot of time off recently."

The investigators were too perturbed to notice his hesitation. The Inspector

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

in charge merely snapped, "This not reporting will go against your record, Cathcart. But you have really given us a valuable lead. Besides we need every available man. So for the present you will not be arrested. Go join your squad."

CATHCART saluted and withdrew. He was loaded onto a truck with some other soldiers, and driven off across the plains.

Gradually order was made out of all the chaos, and a systematic plan was evolved. Cordons of soldiers, within fingertip distance of each other, swept through the entire colony. Every house and thicket was searched. Every citizen was bundled in to the nearest Registry, was checked against his card-record there, and was ordered under penalty of death not to leave a certain circumscribed area.

For about a week this kept on, until every square foot of the 1500 square miles of the colony had been scoured. More than a thousand men and their families were reported missing, and not a trace of them nor of Donna Frain and Putorius Terro could be found.

It was inexplicable! As many people as that just couldn't possibly vanish into thin air, especially in a completely hermetically sealed world such as this colony of Malcolm Frain's.

Of course the cave of the silver beast was discovered during the search. Or rather, it was discovered as the result of information obtained from one of the guards whom Terro and Donna had posted around the wood that day. This man reported the episode to the authorities as soon as the inquiries about Terro began. A guard was again posted, and the wood was scoured by specially selected Regular Army troops, with the result that when the ordinary searchers reached the place, the mouth of the cave had been sealed up and was passed almost unnoticed.

At the end of a fruitless week, the militia were dismissed and told to return to their homes. Cathcart trudged wearily back to the house of the Freundlichs, thoroughly discouraged. What could have become of the flaming Donna? The diabolical cleverness of his rival, Terro, intrigued and maddened him.

But there was one consolation: if Donna should ever escape or be rescued from her imprisonment, she certainly would have no further use for her captor. But then a doubt assailed Cathcart. What if Donna had gone willingly, and was a party to all this? But no, she could never be disloyal to her father. Still, women do strange things when infatuated.

DR. FREUNDLICH eagerly greeted him. "My young friend," he exclaimed, "I have made great progress in my experiments to determine the nature of this universe. Come, you must see."

Cathcart slumped into a chair waved Freundlich away with one hand, and let his head fall dejectedly into the other. "Take it away, doctor," he groaned. "I don't care where we are, or what this universe is. All that want to know is what has become of Donna Frain."

"So do we all of us—all who are loyal to the Boss," Dr. Freundlich relied in a kindly voice. "And especially do I sympathize with your own deep personal interest in the subject. But listen, my young friend. Do you not realize that the nature of this universe may have an important bearing on the Fraulein's fate?"

Cathcart raised a haggard face. Then his eyes lit up, and he pulled himself erect. "Okeh, Doc. You win. "I'll

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

listen to anything which has the slightest chance of helping to find the girl I love."

"So?" whistled Freundlich. "So you love her, eh? I have thaught as much for some time. Come into my study."

There, seated in a comfortable stuffed leather chair, and soothed by a glass of his host's synthetic wine, Cathcart prepared to listen.

"First, my young friend, I have given up all attempt to measure the curvature of this earth, although I do not subscribe to the theory that it is flat. If, as I suspect, its curvature is of the nature of seven one-millionths of an inch to a mile, it cannot be measured without the use of more delicate apparatus than I have available, and the spanning of a distance which would involve too much publicity."

"I thought you said you had discovered *something*, not *nothing*," Cathcart dejectedly interjected.

"Ah, but I have truly discovered something—quite a great deal, in fact. First I have definitely proved that we are not on the earth—as we know it. But this is only one of my experiments. Let us take a hypothesis, and proceed toward its verification or disproof."

"And what is that hypothesis?"

"That you and I, and all the rest of the people of this colony, are only seven hundredths of an inch tall. From Earth's Center is a long long way by that scale. Hence no curvature."

"What!" Cathcart sat suddenly erect. "Why, how utterly absurd! Are you you feeling all right, Dr. Freundlich?"

"Never felt better in my life." The little man beamed at him from behind his thick glasses.

"But what is the evidence for your theory?"

"I thought you were a scientist, Dr. Cathcart. A true scientist needs no evidence in support of an hypothesis. Sufficient is it that no evidence conflicts with it. If we are only seven hundredths of an inch tall, this would account for there being no observable curvature of the earth, and for the barometer not leveling off at thirty inches."

"Pretty slim!" Cathcart said.

"Well, it would explain the nature of this room in which we find ourselves."

"You mean your study."

"No, I mean this whole thirty-nine-mile-square colony. Maybe this colony is the two-hundred-foot-square room in Malcolm Frain's warehouse, to which you carted the laboratory-treated silt several months ago. Maybe our coarse soil is that fine silt. Maybe the status-changing machine which brought us here is a size-reducer. Maybe—"

"HOLD on!" Cathcart interrupted. "If we are only one one-thousandth our natural size, the acceleration of gravity would be 32,160 feet per second per second, instead of only 32.16. Our weight would be unbearable."

"Unbearable nothing! Our mass would be reduced to one billionth of its earth value, and the combined effect of mass and acceleration and reduction in height, would make our weight appear to be one one-thousandth of what it should. Too light, rather than too heavy. And anyway, I've measured g; it's normal."

"I have a theory," Cathcart asserted, warming up to the subject. "Suppose that our time-sense has been changed, too, so that a second of real time seems like thirty-two seconds to us; then, if our height has been reduced to 1/1024 of normal—"

"But why those figures?"

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"Because of the thirty-two day month down here. May it not be that each day on earth is a month in this colony. That would account for all the time-discrepancy which we have observed. You've been here five years, while two months have elapsed on earth. Terro left the earth only a few hours ahead of me, and yet arrived here four days ahead."

Dr. Freundlich's pudgy face suddenly lit up. "Thirty-two times, exactly!" he exclaimed. "The Foucault pendulum! It rotates 28 minutes of arc per hour, exactly one thirty-second of what it should!"

Cathcart continued, "And, with time sped up to this extent, light would appear shifted five octaves into infra red. In order for light to seem normal to us, Boss Frain must be flooding this warehouse with ultra-violet light, five octaves above visibility. But ordinary air is impervious to light as ultra as that, and such light would be lethal; so the Boss has probably status-changed the air of this miniature world of his, so as to pass the light; and the change in our own size-status is probably protective in some way. But look what it did to the silver-fish!"

"My experiment with the photographic plates checks with this," said Freundlich. But he was frowning now, and Cathcart could see that something was puzzling or worrying the older scientist.

Just as Cathcart was about to inquire, sounds of cheering outside interrupted him. The two men rushed to the front door, and flung it open. A parade of soldiers was marching past in the brightly lighted street. In their midst rode Boss Frain himself, in the trim black uniform of the Frain Guards, seated regally on a black horse, receiving the plaudits of the multitude. Quite evidently he had visited this world of his to take personal command of the operations against the Populists, and of the search for his missing daughter.

Somehow the presence of this great man was very comforting and reassuring to Robert Cathcart. He had never seen the Boss before. Bushy browed, keen-eyed, hawk-nosed, and firm jawed, sitting erect upon his charger, Boss Frain radiated energy and confidence. With him in charge, Donna would surely be found. Spontaneously Cathcart let out a cheer, and the god of his destinies turned and smiled in his direction in acknowledgment of the greeting. Then the procession passed on.

AS Cathcart and Freundlich returned to the study, the latter dryly observed, "So you can see, my young friend, from the way in which you yourself reacted just now, the personal magnetism which enabled Malcolm Frain to rise to the dominating position which he occupies. And yet, if our theories are correct, that man Frain has arrogated to himself the right to hold in the hollow of his hand all of us who dwell in this miniature world which he has created. A mere flip of a switch could plunge us in darkness forever. A crack in the walls could let in ordinary air through which we could not see, even by artificial illumination. A larger crack would let in outside light, infra-red and searing to our status-changed sensibilities. Suppose he were to shut off the rain, and deprive us of water. Or leave it on, and flood us out."

Cathcart shuddered. "Let's hope our theories are wrong!" he fervently exclaimed.

"Perhaps they are, for I have just thought of one fact which may upset our entire hypothesis. Muscular strength, all other things being equal, varies with the cross-section of the muscle. With weight reduced one bil-

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

lionth, and strength reduced only one millionth, a man here should be a thousand times as strong as on earth."

"Let's pass that over for the moment," Cathcart suggested. "Why not measure the velocity of light?"

Freundlich smiled. "You forget relativity. The velocity of light is independent of the observer; it is an absolute quantity."

But Cathcart persisted. "Independent of position or motion of the observer, yes. But not independent of either the size or the time-sense of the observer."

"I believe you have something there," Freundlich mused. "I shall start building a gear-wheel light-interrupter tomorrow."

The next day the detailed combing already given to every square foot of the colony was repeated under the watchful eyes of the Boss in person. The Boss rode everywhere among the searchers, on his black horse, encouraging them, urging them on. But it was no use. Not a single clue did they turn up. And a re-check of the populace developed the fact that several hundred more citizens had disappeared since the first combing.

Toward the end of the week, as Cathcart was patrolling one of the streets of Town 13, he saw Mickey Foley ducking into an alley. Here at last was a clue, which any other member of the Frain's army, not knowing Foley, would have missed. Silently Cathcart raced to the alley mouth. It was a dead-ender. Foley was running rapidly toward a fence at the further end.

Whipping out his revolver, Cathcart shouted, "Halt, Mickey, or I'll fire."

But, without pausing or glancing back, Foley vaulted over the fence. Cathcart fired. And suddenly everything went black.

For a moment, Cathcart thought that something had hit and stunned him; that someone had fired back, simultaneously with his own shot.

But no. There was no numbness, no dizziness. Everything was quite all right, except that he could not see. He groped to the side of a building and leaned against it. Far down the street in the jet darkness, isolated lights began to twinkle here and there. Then the window of a house across the road lit up, and he could see himself and his surroundings by the diffused radiance which poured out.

A clatter of hoofs, and Malcolm Frain dashed by, alone, unguarded, his eyes wide, his face ashen with fright.

Then the shades were pulled down, and once more Cathcart was in darkness.

At last the street lights came on, street by street. Cathcart ran to the end of the alley, and peered over the fence; no sign of Mickey Foley. So he set out for local Headquarters to report.

But would anything be accomplished by reporting? The Authorities had proved quite impotent thus far. And somehow Cathcart had the same degree of instinctive confidence in the little Irish newspaper reporter, that he had distrust of the swarthy Terro. Perhaps Mickey's presence among the revolutionaries would be a protection to Donna Frain. Cathcart must do nothing to deprive her of that protection. So he turned around and retraced his steps to his beat. And then he suddenly noticed that it was broad daylight again.

WHEN he was relieved of his post, and returned to local Headquarters, Malcolm Frain was there, his poise somewhat recovered, but his eyes furtive and hunted. The others, not having seen what Cathcart had seen, did not appear to notice.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The brief spell of darkness was explained as having been an eclipse. But how could an eclipse occur in a world that has no sun? While Cathcart and Boss Frain were still there, several of the patrols brought in copies of a new Populist manifesto, this time boldly signed by Terro's name, demanding the immediate recall of all troops, under penalty of death to Donna Frain; but promising to spare her life, if the Boss obeyed. And a dated letter, written in Donna's unmistakable handwriting, had been found in a mailbox, declaring that she still lived, but that she was refusing, even under threat of torture, to beg her father to save her.

Foolish bravery! Her letter was just as effective without the plea.

Boss Frain read the flier, and then his daughter's letter, and then the flier again. His grizzled jaw was set and grim, but there was a trace of moisture in his steely eye.

He loved his daughter more than he loved his power. But even in defeat he was firm, decisive.

"Call off the troops!" he commanded. "And announce that I have done so. But announce also that if any harm comes to my daughter, every man, woman and child in this colony will be put to a horrible death."

This concluding threat chilled in Cathcart the sympathetic warmth which he was beginning to feel for Donna's father. And yet would not he himself be willing to deal the same to anyone who injured her?

He returned to Headquarters City not quite as glumly as at the end of the former search. For now he knew that Donna was still alive, and his glimpse of Mickey Foley was strong evidence to him that the whole band of conspirators were still in some quite tangible locality within this cellular world.

But where? Suddenly the solution dawned on him. A cave! Another cave, like the one from which had come the silver beast. Such a cave could easily house several thousand persons!

Accordingly, he resolved that, as soon as his military outfit was dismissed, he would lay the idea before the Boss in person; it was too good a hunch to waste upon stupid subordinates. Besides, the suggestion might boost his stock with Donna's father. First, however, he would broach his theory to Dr. Freundlich, and ask Freundlich's advice and influence for securing an audience with Malcolm Frain.

But the troops were not dismissed immediately upon their arrival, for first an official circular had to be distributed from house to house, explaining that an "eclipse" was as normal and natural an occurrence here as on earth. So it was late evening when Cathcart, still in uniform, finally reached the house of his patron; but Dr. Freundlich was still up.

THE genial little man waited patiently, though with suppressed excitement, while Cathcart announced his theory as to the hiding-place of the Populists, and recounted the events of the week. Then Freundlich, his pale eyes flashing, sprung his own news.

"I have measured the speed of light. It is thirty-two times what it should be, thus confirming our hypothesis. Even the question of the muscular strength is solved, for I have found in our library an obscure paper by the great Carey of Marquette, in which he expresses doubt that muscular strength varies as the square of its dimensions—in fact, he even hints that it may possibly vary as the cube. This hidden universe of Malcolm Frain's—which is nothing but a warehouse stall —. confirms Carey's guess."

"Then it is true that Boss Frain holds

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

us in the hollow of his hand!" Cathcart exclaimed, bleak horror in his eyes. "We are mere tiny insects crawling in the silt of a warehouse floor!"

Dr. Freundlich nodded solemnly. "And nothing can be done about it. But I have a still greater surprise for you. Come to my laboratory."

At the laboratory, Freundlich put a record on a phonograph, wound up the machine, and placed the needle in the groove. From the sound-box there came a slow, almost musical, deep rumble, rising and falling in uneven waves.

"The noise from behind the black curtain in the cave of the silver beast," Cathcart commented. "But what of it?"

The rotund face of Dr. Freundlich beamed impishly. "And now I will speed it up thirty-two times." He made an adjustment and replayed the record. "Listen!"

Out of the sound-box came the unmistakable voice of Malcolm Frain, saying: "And so, Mr. Secretary, this is my ultimatum to America. You and I and the President are among the few who realize that War is about to break. America is not ready. I alone can make her ready. I have secret means whereby I can speed up the manufacture of munitions and the training of troops thirty-two times the normal rate. Think of it! A month's training for raw recruits in a single day. It may seem impossible to you, Mr. Secretary, but you will have to believe me, for the sake of America. However, I am not patriotic; I am a hard-headed business man; and my price is—" A scraping sound, and the record ended.

"Isn't that perfect?" Freundlich exulted. "Even to the mention of the mystic number, 32!

"What interests me more than that," said Cathcart soberly, "is the impending fate of America, and the price which the Boss is to exact to save her."

"I thought," Freundlich maliciously replied, "that it was another 'she,' whom you were anxious to save."

"Donna! How could I have forgotten her even for an instant? I must see her father at once."

But his genial host held up a restraining hand. "Wait!" he said. "Listen to the remaining phonograph records, so that you may know the manner of man with whom you have to deal."

SO the rest of the records were played. They revealed an amazing situation. By piecing together scraps of recorded conversation, the two scientists were able to figure out that "Mr. Secretary" was the Secretary of War of the United States, that he had cast dignity aside and had come to beg the great Industrialist to save America, and that Frain's price for this service was that he be appointed Secretary of State, and that the President and Vice President both resign.

"A man with such lack of patriotism and such a vaulting ambition as that," Freundlich grimly commented, "would stoop to anything, even to the sacrifice of his own daughter."

"I doubt that!" Cathcart defended. "Remember please that Frain withdrew the troops when she was threatened. I was with him at the time, and saw his face—it reflected an inner struggle beteen love of Donna and love of power. Love of Donna won."

"Well, anyway, this 'colony,' as he calls it, is a mere toy of his. Suppose he tires of it, what? Remember the 'eclipse'? Undoubtedly a mere instant's stoppage of the electric current which lights this miniature world. Man, do you realize that Malcolm Frain, by a mere flip of a switch, could snuff us all out? If anything happens to his daughter that's what he'll do, in revenge. Or suppose some subordinate electrician

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

blunders for a mere minute of earth time—a half hour of our time down here. Or suppose that something should happen to Boss Frain, and leave persons in charge who don't understand the nature of this cockeyed universe of his!"

Cathcart soberly replied, "My *mind* tells me that you are right, but I can't quite sense it, I can't *realize* that it is so."

"If you ever do realize it, my young friend, remember to hang onto yourself; for it will take a great effort of your will not to go stark raving mad. Remember Malcolm Frain's terror-stricken flight during the 'eclipse'. He realized it then."

The ringing of the telephone interrupted them. It was the maid Minna, all aflutter, to tell them that the Boss was at the house with an armed guard, demanding that they return immediately.

They did so, with considerable trepidation.

MALCOLM FRAIN was pacing up and down the living room in his black uniform with the insignia of a Field Marshal, insignia one grade higher than any American — even George Washington—had ever worn.

"Where have you two been?" he demanded accusingly, as they entered.

"Why—why—," Freundlich stammered, "doing experiments—in the laboratory, Herr Boss."

"Scientific experiments at a time like this?" snapped Frain. "Bah! It was such an attitude that cost Archimedes his life at the fall of Carthage."

"But Carthage is not going to fall this time, Sir," Cathcart cut in.

Malcolm Frain turned deep-set eyes set upon him. "A bold young man," he commented approvingly. "I wish a word alone with you."

Dr. Freundlich interposed, "There is a garden behind the house, Excellency, with a high wall about it."

"Lead us there, and then leave us," Frain peremptorily commanded.

In the garden, Frain eyed Cathcart searchingly for a moment, by the dim light which filtered in from the glare of the surrounding city. "I am told that you are loyal," he stated.

"I admire your great accomplishments," Cathcart replied. He hesitated. "I—I would not like any harm to come to your daughter."

"And you know something about where Terro has hidden her?" Frain shrewdly surmised. "You alone of all of us have had the insight to see through Terro from the very beginning. Also you have shown an ability to hold your tongue; the episode of the silver-f— the silver beast proves that."

Cathcart decided to make a bold play. "Excellency," he replied, "I know the nature of this hidden universe of yours. I know that it is merely a room two hundred feet square in one of your New Jersey warehouses. I know that all us colonists are at your mercy. I know—"

"What! You know all this, and are still loyal! You know all this, and still have not disclosed it to your fellow colonists! Why?"

"Because the knowledge of it would drive men mad. I saw your face when you were fleeing from the 'eclipse'."

Frain stiffened. "Men have died for seeing less than that!" he rasped. "Remember that you are no longer in a free country, Cathcart. I am autocrat here. Well, go on."

"Your Excellency, realizing all this, I hoped that by serving you with unswerving loyalty, I could finally get close enough to you—"

Frain fell back a step, and his hand went instinctively to his hip.

But Cathcart spread his arms wide to show that he was unarmed, and hur-

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

riedly continued, "—so as to persuade you to undo all this, and lead us back to the safety of the real world. That is to say, after first using this colony as the means to thwart the threatened invasion of America."

"What!" Frain gasped. "You know of that, too? How? How?"

"I am a scientist," Cathcart replied.

Boss Frain was smiling now, his momentary surprise ended. "Suppose I were to tell you that your scientific theories are absurd and unfounded? Suppose I were to command you to forget them?"

"I should refuse to either believe of obey you."

"Cathcart! You have gone too far!"

"Boss Frain," Cathcart boldly replied, "let's cut out the sparring. You have the power to kill me, if you wish. You can snuff out this whole colony. I know it. But, my God, man, we both want to find Donna. Let's get going!"

Frain tried to keep his face grim, but it broke into an approving smile. "Young man, I like you!" he exclaimed. "Well, what do you suggest?"

"I have a theory as to where the Populists are holding your daughter."

The crack of a pistol resounded through the quiet garden!

"He got me!" cried Frain, collapsing to the ground with a gurgling groan.

Something thudded onto the patch beside them. An automatic! Cathcart scooped it up.

A dark form was scaling the garden wall, silhouetted against the diffused glare of the city. Cathcart leveled the weapon, and squeezed the trigger. But no shot came.

Unloaded! He might have known.

He bent over the fallen Boss. The shouts of approaching guards could be heard within the house.

This, then, was the end. Alone with the Boss. The Boss murdered. And Cathcart's fingerprints on the butt of the murder weapon!

CHAPTER VI

Flight

THE evidence would be conclusive that Cathcart had killed Boss Frain. And yet his first impulse was not to flee; but rather to stay, in the hope that the father of the girl he loved was not dead.

Yet how unnecessary! The body would be discovered in a few seconds, and Dr. Freundlich and the Boss's retainers would do whatever could be done for the stricken man. So Cathcart thrust the empty pistol into one of his side pockets and scrambled lithely over the garden wall, landing in a dimly lighted alley.

No sign anywhere of the assassin. Cathcart dogtrotted silently to one end of the alley, and peered out. Plenty of people in the street, many of the men being dressed in the black Frain uniform like himself. Cathcart mingled with the throng, and walked slowly along, his mind in a daze.

Gradually his senses cleared, and there came to him a realization of the hopelessness of his predicament. Not his own personal predicament as the putative slayer of the Boss, but rather his predicament in common with all these other poor souls trapped in this hidden universe, which really was merely a room in a New Jersey warehouse. Malcolm Frain himself had admitted as much by his silence in the face of Cathcart's statements.

And, now that Frain was dead, now that his daughter and sole heir was a prisoner of revolutionaries within this same trap, what assurance was there that the elaborate man-made mechanism which supported life within this ar-

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

tificial world, would continue to function!

Cathcart felt a sudden urge to run, to shriek, to seek the barrier wall and beat his fists upon it. But a recollection of the words of kindly old Freundlich stayed him. What had the rolypoly little scientist said? "If you ever reach a full realization of the nature of this miniature world which Malcolm Frain has created, hang onto yourself; for it will take a great effort of will not to go stark raving mad."

Cathcart squared his shoulders and drew in a deep breath. He could face the realization. And, from now on, his problem transcended saving his own neck from an undeserved charge of murder. It even went beyond rescuing Donna Frain for her own sweet sake. He must rescue her for the more important purpose of enabling her to take over her father's control of the destinies of these thousands of poor human mites crawling microscopically in the fine silt spread upon a warehouse floor.

An official car was drawn up beside the curb. Cathcart thanked his stars that the Frain V-eights of this starless world had no locks, since theft was believed impossible here. In an instant Cathcart was in the car, headed for the outskirts of the city, selecting and traversing a little-traveled route. Still no signs of pursuit.

But when he reached the district line, he understood. Instead of a hue and cry, the authorities had merely blocked the exits. A black and white striped gate was down, and in the middle of the road stood a sentry with automatic pistol held at the alert.

CATHCART drew to a stop, and leaned out of the car window. "Private Robert Jones, on an official errand for the Boss," he announced.

"The Boss is dead," the sentinel grimly replied.

"My God, no!" Cathcart exclaimed, his eyes widening and his jaw dropping with well-simulated astonishment. "Why, he gave me this dispatch in person not half an hour ago at the house of Professor Freundlich! How did it happen?"

"Assassinated by a guy named Cathcart. Orders are to let no one leave the city."

So the supposed crime was known already? Of course, it would be. Yet somehow the actuality was more staggering than the expectation had been.

Cathcart shuddered. Then pulled himself together. "But, man, this dispatch must go through. The Boss's death makes it all the more important. Look, I'll show you my pass."

He got out of the car, and started fumbling in the pockets of his military blouse. The guard drew nearer, expectantly, and lowered his gun. Instantly out shot Cathcart's fist, straight to the point of the man's jaw. As the fellow crashed to the ground, Cathcart leaped back into the car, stepped on the gas, crashed through the striped gate, and was off down the road toward open country.

But he had won only a slight respite. The guard would soon be found, and then—pursuit!

About five miles out, and five miles short of the next town, he saw the tail lights of another car ahead. As he passed it, he noted that it too was official. Pulling to a stop a short distance beyond it, he drew his car across the narrow road, blocking it, honked several times, got out, and held up his hand, bathed in the headlights of the other car.

It stopped. Its occupant got out and approached him. An Inspector of about his own size and build.

Cathcart saluted. "Sorry to stop

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

you, Sir, but I'm on special patrol, to inform all Inspectors who haven't been reached by radio or telephone, that the Boss has been murdered and that they are to be on the lookout for his assassin."

The Inspector was eyeing him suspiciously. "My car is equipped with short-wave," he crisply replied. "I know all about it, and am on the same mission myself."

"Then stick 'em up, Sir," gritted Cathcart, reaching in his pocket for his empty gun.

Up slowly into the air went the officer's hands. Cathcart stepped forward as though to search him, but instead clouted him over the head with the barrel of his gun. The man collapsed without a sound to the pavement.

Rapidly Cathcart dragged the inert form into a nearby field, ran his own car off the road, knocking down a fence to make it look like an accident, and switched off the lights. Then he pulled loose some wires, changed blouse and cap and gun with the Inspector, and propped the body up behind the wheel.

AS he continued on his way in the Inspector's car, he commented grimly to himself, "If they discover the car before the Inspector comes to, it'll be a clear case accidentally running off the road. If he comes to, finds he can't start the car, and staggers into some nearby town or farmhouse, no one will believe his story. In either case, he'll be arrested for being me, and in the meantime I have all the necessary papers to identify me as Inspector Talbot. And a short-wave radio, to keep track of the pursuit. What a break!"

His identification papers got him by the next two barriers. But Cathcart began to wonder how long he could succeed with this impersonation. So finally on the outskirts of Town 13, which he had picked as his destination, he parked the car and reconnoitered.

The open lighted window of a farmhouse attracted his attention. He crept up to it and peered in. It was a bedroom, vacant for the moment. Beyond it he could hear the sounds of a man singing and splashing in a bath tub. On a chair by the window was a suit of clothes.

Cathcart reached in and took the clothes. Hastily slipping into them behind the barn, he threw his uniform into the manure pit, and resumed his car. By the car's dome-light, he inspected the contents of the pockets of the purloined suit, and to his joy found a pass, dated that very day, entitling Thomas Thistle to enter and leave Town 13. So running the Inspector's car into a side road he switched off the headlights removed and hid the distributor, and set out on foot the remaining half mile or so to the town.

His pass got him into town all right. But now what? As he was walking thoughtfully along the almost deserted streets, trying to recall the exact locality where he had seen Mickey Foley, a Corporal in uniform accosted him. "Pretty late to be on the streets, Colonist. Let's see your pass."

Cathcart pulled it out and handed it over. The soldier tilted it to read it by the light of a nearby street-lamp, then wheeled around with, "You're not Thistle! I know the man. Who are you?"

"Oh, have I Tom's pass by mistake? That is too bad. You see I'm visiting Tom, and—" Out shot his fist, spilling the Corporal into the gutter.

But the blow was ill-aimed. The soldier was up in an instant, his automatic clutched in his hand. "Halt, or I fire!" he cried.

Cathcart fled.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

A shot rang out behind him. Another, and another. He dodged down an alley.

But it was the same dead-end alley into which he had formerly chased Mickey Foley, or another one much like it. Over the fence at the end went Cathcart, just as Foley had done that other time. Cathcart groped his way across a yard in the darkness, scaled a fence at the further side, and found himself another alley. The black form of the soldier appeared on the top of the wall, silhouetted dimly against the sky. Cathcart reached into his pocket for the Inspector's gun, and then realized that he had left it in the Inspector's clothes which he had heaved into the manure-pit. So he flattened himself into a dark doorway. The pursuing soldier dropped from the wall, and trotted by.

Cathcart heaved a sigh of relief, lost his balance slightly, and leaned against the door for support. But the door swung open, and he sprawled into a brightly lighted room. He blinked, sprang to his feet, and looked into the muzzle of a revolver.

Behind it was the grinning freckled face of the little Irish tabloid reporter.

"Well, if it isn't the assassin in person!" Foley exclaimed, lowering the gun and closing the door. "You're one of us now, whether you like it or not. Wouldn't this make the front page! But we must be quick about it. This way!"

HE snapped off the lights, and led Cathcart groping through several rooms and down some stairs, then turned on a single dim light. They were in a cellar room with tiled walls. Foley pressed on one of the tiles, and a small section of the wall swung open, disclosing a long low dirt tunnel. Into this they crawled, closing the smoothly hinged wall-section behind them.

"Well, Cathcart," said Foley, as they crawled along, "how come you killed the Boss?"

"It's a long story, and I think I'd better save it for Mr. Terro."

"Oho! So you know where I'm taking you?"

"Naturally. This is where I was heading for. Lucky thing your door was open."

"Damn careless of me, if you ask me. You might have been a cop. Please don't tell our Leader that you got in without giving the countersign."

"I won't," Cathcart promised, grinning to himself in the dark.

The tunnel ended against a smooth face of hard rock, and turned sharp to the left. Dim light could be seen ahead. As they crawled nearer, this light was disclosed as coming from a narrow crack in the wall to their right.

Through this crack they squeezed, and stood erect in a cavern just like the lair of the silver beast. This then was the hide-out of the Populist revolutionaries; Cathcart had been correct in his guess.

A heavily armed squad of determined-looking men in civilian clothes stopped them just inside the cave, and expressed great surprise and joy when informed as to the identity of the newcomer. "Our Leader will certainly be glad!" they exclaimed.

But Cathcart wondered whether Terro would be glad to see him; and, if glad, glad for what reason and what purpose.

"So long, Bob. Wish you luck with us," said Foley, turning back.

"So long, Mickey. I'll give you the story exclusive for your paper some day, if we ever get out of here."

Then one of the guard led Cathcart away, down the cavern.

This crack in the barrier-wall was

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

larger than had been the cave which he and Dr. Freundlich has explored. Along one side stood rude houses of rough board. Additional houses were in the process of construction. Water-pipes and a sewer-main lay along the floor of the cavern, and the whole place was well lighted. Fortunately for the conspirators, neither water nor electricity were metered in the Frain colony, and so the diversion would never be noticed; or, if noticed, could not be traced to here.

Finally Cathcart reached a house more pretentious than the others, and was led inside. A crude printing-press was working. There were file-cabinets along the wall, and a number of clerks at desks. Two soldiers, incongruously clad in the Frain uniform, although at war with Frain, stood one on each side of a closed door. One of them stepped inside, reported, and then ushered Cathcart in.

At a desk facing the entrance, sat Putorious Terro, swarthy, oily, and self-assured. He, too, wore the black uniform of the government against which he was rebelling, and on each shoulder were the five stars of a Field Marshal.

CATHCART'S grey eyes narrowed, and he was about to remark that his former truck-driver associate had certainly come up in the world; but he restrained himself and saluted.

"Well, Cathcart," said Terro, his closely set eyes boring into the man who stood in front of him, "we meet again. So you have at last taken my advice to join our cause? But perhaps you have come too late."

"I hope not," Cathcart replied, grinning quizzically.

Terro evidently misinterpreted the grin as an attempt to be engratiating, and the remark as an expression of hope that the lateness of Cathcart's eleventh hour conversion would not be held against him. "What have you got to prove that you are on the up and up with us? The killing of the Boss?"

"No," said Cathcart, his grey eyes narrowing. "But rather a frank admission that I am entitled to no credit whatever for his death."

Terro raised his bushy black eyebrows. "Your frankness panics me. Who did bump off the Boss?"

"I thought you knew."

"Oh! Then your frankness don't panic me one bit. I sent several guys to do the dirty work, but they ain't any of them reported yet, so I was afraid that you'd beaten them to it. Frain really is croaked?"

"I was alone with him when he died, Sir. That's why I'm getting both the credit and the blame for it."

"Wish I could be sure you're not stringing me. Maybe the whole yarn is a frame-up. You got here too damned easy for a feller who's on the lam. How did you find our hang-out?"

"I just happened to—" But no, he must not betray Mickey Foley's carelessness in leaving that door unlocked. "I just happened to be running away from a soldier. I ducked into an alley and banged on a door. Must have given the secret number of raps by accident, for one of your men let me in. But he took good care to keep me covered until he recognized me as the supposed assassin. Then he brought me here. That's all."

Terro waved a lordly hand to the guard. "Take him away and throw him in the jug, until we get a line on his line."

BUT Cathcart interposed. "Just a moment, your Excellency. May I have a word in private with you first?"

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"Frisk him!" Terro commanded. The guard found nothing. "All right, guard, scram. Well, Cathcart, what's on your mind?"

"A plenty, Sir. Do you realize that a man who has proved himself clever enough to locate your hide-out—"

"Then your line about how you got in here ain't on the level?" Terro snapped, glowering at him.

"It's perfectly on the level. But I had already traced you to Town 13, and had figured out that you must be in a cave in the barrier wall. So I'd have found you sooner or later. But, as I was saying, don't you realize that a man as clever as that, would have been able to figure out Malcolm Frain long ago. Do you realize what and where this so-called 'colony' is?"

"Now don't spring any fourth dimension stuff on me, feller. It's just a hole in the ground, which takes twenty minutes to reach by elevator from the Frain warehouse."

"It's no such thing!" If Cathcart could but get this hulking opportunist to realize the truth, he might succeed in scaring him into negotiating with the authorities. "That 'elevator' really *is* a status-changing machine—it has shrunk us all to a height of less than a tenth of an inch. This forty-mile-square colony is merely a two-hundred-foot room in the Frain warehouse. I was a scientist in the outside world, Terro, before I got down-and-out and took a truck-driving job with Frain. You yourself know that they assigned me to the laboratories of the great Herr Doktor Freundlich here. Since my arrival in this colony I have spent all my spare time with scientific tests to discover the nature of this hidden world; and, believe me, I've discovered it!"

"Baloney!" sneered Terro, but there was masked fear in his narrow-set eyes. He rang for the guard. "Take him away, and lock him up."

As Cathcart was led out through the room of the printing press, his eyes caught the wording of the flier that was being run off. He snatched up a copy, and read it:

COMRADES ATTENTION!
BOSS FRAIN IS DEAD!

His sole heir is his daughter, Inspector Donna Frain. She had joined our cause. She is not the heartless capitalist that her father was. And she has consented to marry your Leader. By the time that this reaches you, the wedding will have been performed.

This is my last warning. Pass the word along to all those who still support the old regime, that the old regime has crumbled, and that Donna Frain herself will deal harshly with those who do not immediately join the Populist movement.

She and I jointly promise liberty and justice for all, and a free return to the earth for those who wish it.

PUTORIUS TERRO.

Cathcart's hands clenched. His Donna married to that brute! Did she love Terro? Could she possibly love Terro? Cathcart writher with an agony of jealousy. And yet was not the outcome of all this the exact result for which he himself was aiming, namely the evacuation of this tiny world before someone slipped at the control levers and snuffed them all out.

He paused irresolute, his personal feelings warring with his duty. The guard gave him a shove.

And then suddenly Cathcart's keen mind saw the flaw in the whole set-up. Donna undoubtedly knew the secret of this hidden universe, and evidently had

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

not told Terro. Hence she was an unwilling bride. Putorius Terro would prove a worse tyrant than even Malcolm Frain; and would stop at nothing, even the death of the flaming Donna—after marrying her and thus making himself her heir. He would drive a harsher bargain with the United States Government than even Frain had been prepared to do. It must be stopped.

With a wrench, Cathcart pulled away from the guard and dashed back into the office-room.

"By God, you shan't do this!" he shouted, making a leap across the desk at the startled Terro.

The roar of a pistol shot sounded behind him, and he crumpled senseless before he reached his intended victim.

CHAPTER VII

Abject Terror

CATHCART found himself lying in darkness on a hard rough rocky floor. Through the cracks in the board walls which surrounded him he could see dim light.

He sat up unsteadily. His head ached terrifically. He raised his hand to it, and found that a wet sticky bandage was wrapped around it.

He staggered to his feet, and groped along the walls of his prison. Found a door, and rattled it. A man came, and opened a peek-hole, and peered in.

"Hello," said Cathcart.

"Uh-huh," the guard grunted.

"How long have I been out?"

"About two hours."

"When does the Leader get married?"

"None of your business."

Cathcart grinned to himself. So the wedding had not yet taken place?

"Don't you think that this is a rather scurvy treatment to give to the man who killed Boss Frain?"

"I ain't saying nothing."

"But you're willing to listen, if I give you some information which may be of value to you? It's vital to the Populist cause, but I couldn't get our Leader to listen to it."

"Uh-huh."

"You look like a decent sort of a guy. Get me a glass of water, and I'll give you an earful."

"Okeh, buddy. But I ain't saying nothing."

The peek-hole closed. Presently it opened again and a glass of water was handed through. Cathcart drained it. He felt immeasurably better and stronger. Now to sow panic amid the forces of the enemy.

"Listen closely, and don't breathe a word to a soul." With this introduction, Cathcart plunged into an account of his scientific theories as to the nature of the hidden universe.

But the man interrupted him with a snort of, "Looney! Looney as a bat! No wonder our Leader wouldn't listen to you." And slammed shut the opening.

As Cathcart slumped disconsolately to the ground again, he tried to make himself believe that the seed of fear which he had planted in the brain of this dull-witted fellow might sprout and spread, before too late.

A couple of hours later the peek-hole opened again.

"Hello!" said a familiar voice.

"Mickey!" Cathcart exclaimed.

"Sh! Careful! I'm on guard here now for one shift. Mustn't fraternize with the prisoners, you know."

"Listen, Mickey. I rather figure that our great Leader won't permit me to live very long, and so I'm going to make good my promise to give you the low-down on the death of Boss Frain. For your tabloid, when you get out of here. It ought to be a scoop."

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"That's decent of you. Shoot."

"Remember your tipping me off once to the fact that this is a flat world? No curvature?"

"Yeah. But what has that to do with your killing the Boss? Me, I wouldn't murder a man just because the earth is flat. But then you Harvard fellows are peculiar."

"Mickey, this is no laughing matter. Listen. I'll give you the scientific scoop of the age, and in as popular language as I'm capable of. Then it'll be up to you to play the Garrett P. Serviss with it for the press."

"Shoot."

THIS time Cathcart got the idea completely across. And the news value of the story so completely transcended all other considerations in the little reporter's mind, that he forgot to be frightened at it.

"Ain't we got fun!" Foley exclaimed when Cathcart finished. "I can just see the front-page lead: 'FRAIN'S SECRET WORLD EXPOSED. The Man Who Would be God! Talk about your Millionaire Man of Mystery! The mystery is solved!"

"Yes, but Mickey," Cathcart soberly reminded him, "how are you going to get your story to your paper?"

"The revolution is about to triumph, and then we'll all be free," the reporter airily replied.

"I wonder. What if someone were to turn off the current in the meantime? There's no one running things, you know, with Frain dead and his daughter vanished. We're only a lot of little fruit-flies; we'd never be missed."

"Gosh, I hadn't thought of that!"

"Mickey, how would *you* handle that story if you wanted to get it across to a lot of fruit-flies, instead of to the readers of the New York Daily Tabloid?"

"How—would—? I getcha. I'd cut the part about the size-change. That's too goofy. I'd cover merely the fact that our light and air is fed into here artificially, and that if a powerline happened to break, or if the man at the controls happened to fall asleep or quit his job—blooie! And with Frain dead, that's what's just as like as not to happen, unless his daughter takes charge pronto. She's probably the only person who understands the ropes, outside of him."

"Good boy, Mickey," Cathcart breathed. Now Mickey would be sure to take care of Donna!

"But look-a-here, pal. How come, knowing all this, you killed the Boss?"

"I didn't." Cathcart then related what had actually taken place in the garden, including Malcolm Frain's tacit admission, just before the firing of the fatal shot, that Cathcart's theories of the nature of this hidden universe were correct.

"But then why does Terro give you the credit?"

"The blame, you mean. I figure he wants to queer me with Donna."

"Oho!" Foley whistled. "So that's the way the land lies. Well, I don't know. Perhaps the quickest way to get us out of here would be to let the marriage go through."

Then Cathcart played his trump card: the conversation of the giants, which his phonograph had recorded.

"The dirty louse!" Foley exclaimed. "So Boss Frain cared more for power than for saving his country. He deserved to get shot! And what a story this war will make. Gosh, I've *got* to get out! Change of guard coming."

He slammed the cover of the peek-hole shut.

Cathcart sat down again on the hard floor, well content to believe that he had at last succeeded in planting a virus

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

of fear, which would serve for the eventual undoing of Putorius Terro, and the rescuing of Donna Frain.

And then he realized that he had omitted to ask Mickey Foley when the wedding had been set for. Nor would the new guard tell him.

But the succeeding guard, although he too would not tell Cathcart anything about the wedding or other plans of Leader Terro, did ask Cathcart with much trepidation about the danger of a cut-off of light and air from the colony; and Cathcart, taking care now to keep away from the question of size, gave the man plenty more fearsome details to increase his worry. And added the suggestion that a failure to shut off the regular night rain would drown them all like rats in a trap. Truly Mickey Foley's news-story was spreading!

Each successive guard seemed more terrified, and more eager to interview the prisoner. But none would tell him anything about the wedding. Was it too late to save Donna from this unwelcome marriage?

Finally word came that the Leader wanted to see him, and he was taken—this time strongly shackled—out of the prison, down the cavern, and into Headquarters once more, into the presence of Putorius Terro.

This time Terro was taking no chances—behind his chair stood a row of determined looking men, revolvers held alertly ready.

THE Populist Leader's tufted eyebrows contracted in a frown above his narrow-set beady eyes. "Cathcart," he snapped, "you ain't going to bother me much longer. But first I thought you'd like to see the wedding. It's going to be pulled off at once."

"Does Miss Frain really want to marry you?" Cathcart blurted out.

Terro opened his slit mouth, disclosing two rows of bad teeth, and laughed. "She didn't, once," he admitted, still laughing.

"What do you mean?"

"That is, not until I told her what was to be my wedding present to her. When she heard that, she flung her arms around my neck."

Cathcart grimaced at the thought.

Terro continued, "I'm going to give her the death of the man who bumped off her dad. She's going to pot you herself at the wedding!"

And the guards dragged Cathcart out again, to the accompaniment of Terro's croaking laughter.

This time Cathcart was led to a part of the cavern which opened out into a huge vaulted hall. At one side jutted a ledge of rock which formed a natural stage. At the edge of this stage stood a rough wooden altar, and at one side of the stage a four-by-four beam some ten feet high was planted upright in a crack in the rocky floor. To this beam Cathcart was firmly bound with ropes, a dirty disheveled figure with two days' growth of beard. One man hit him roughly on the face.

The wooden benches of the amphitheater were beginning to fill with people, who stared curiously up at him, and whispered. Had Mickey's propaganda spread sufficiently, he wondered, so that he could hope to sway this audience with an appeal to save Donna Frain and themselves?

As if in answer to his speculations, one of the guards came and stuffed a handkerchief in his mouth, and tied another across his jaws to hold the first in place. Terro was taking no chances of a farewell address by his victim.

A trumpet blared, and the whole audience arose, as their Leader, clad in his Field Marshal uniform, entered from one side with a priest. So this rabble had their Friar Tuck too?

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Then a military band struck up the wedding march, and Donna Frain, clad in white, and leaning on the arm of an elderly man whom Cathcart did not know, came down the aisle, followed by six of the women. Her face was set and colorless.

Cathcart tried appealingly to catch her eye. She flashed him one contemptuous glance, held her head a trifle higher, turned toward Terro and smiled. Terro smiled back possessively, and then grinned up at Cathcart.

The procession halted and the music stopped! The priest signed to the bridegroom to step forward and claim the bride. But instead, Terro held up his hand and leaped to the platform.

"Comrades!" he shouted. "Boss Frain is dead." The crowd let out a cheer, and Donna shuddered. Terro continued, "But now we are going to make peace with the Frains, with us on top. All of youse who have stuck by me are going to have fat jobs in the Frain Industries. The price of this peace is that the lady here is going to bump off the guy who killed her old man. Here, dear, take this."

HE stepped to the edge of the stone platform, pulled the automatic out of its holster at his waist, and handed it down, butt foremost, to Donna Frain. Cathcart strained at his bonds, and strove to spit the gag out of his mouth.

An angry murmur arose from the crowd, interspersed with, "No! No! He killed our enemy. He's one of us. Let him live."

"Silence!" Terro shouted.

"He did *not* kill Boss Frain," came a cracked voice from the crowd. "I did!"

All eyes turned in that direction. A tall gaunt long-haired man stood up. "Leader Terro," he cried. "You shan't take the credit away from me. You assigned me the task of wiping out our oppressor. I did it, and now you give credit to another. Down with *all* Frains, I say."

He snatched out a revolver and leveled it at Donna.

The roar of a shot! But it was from the platform, not from the tall man in the crowd. On the edge of the platform stood Mickey Foley, smoking gun in hand. The tall man crumpled.

"Is this true, Sergeant?" Donna called up to Field Marshal Terro, and there was a sting in the word "Sergeant." She swung her gun around toward Terro, but a nearby guard snatched it from her hand.

"You bet your boots it's true!" shouted Mickey Foley, digging his gun into Terro's ribs. "Cathcart is innocent. Tell 'em it's true, 'Sergeant!'"

"Of course, it's *not* true," their Leader suavely replied. "This dead man was insane. Cathcart *claims* to have killed the Boss. If Cathcart lies, then he is a traitor and a spy."

Cathcart tried to shout to Mickey to shoot and shoot quick. Terro was playing for time. One man alone could not hope to hold this crowd at bay for many minutes. But not a sound came through Cathcart's gag. He strained at his ropes, and thought he felt the pole to which he was tied tilt a little.

A breathless pause ensued, to be broken by a man rushing into the hall, frantically shouting, "It's happened! The light and air are shut off! And it's raining! We'll all be drowned!"

Terro took advantage of the confusion to wheel and grab the gun out of Foley's hand. "It's a lie!" he shouted.

Cathcart gave a heave, and the foot of the stake lifted out of the crack in the rocky floor. He leaned far forward, and crashed to the ground, striking Terro squarely with the top of the pole, and felling him.

The whole auditorium was in an up-

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

roar. Foley rushed over to Cathcart, cut his bounds, and yanked off his gag. Then picked up his fallen weapon and pumped several shots into the sprawled body of Putorius Terro. "Let's get out of here, pal," he shouted.

"If the end of the world has come, what's the use?" Cathcart asked, staring around for Donna, who had been swallowed up in the crowd.

"Nuts!" Foley snapped. "I planted the man to say that."

"But we must save Donna."

"Nuts again! There's only one way out of this cave—the dirt tunnel. I know a short cut to reach it. Donna'll be in the crowd all right. The thing to do is to get to the tunnel ahead of the mob, and preserve order. Come on!"

CATHCART grabbed a gun out of the hand of a bewildered guard, and followed Foley into a narrow slit in the wall, through which they groped for quite a way in the darkness, finally emerging into the main cavern again into a seething crowd surging toward the exit.

A guard struck him roughly.

The exit was hopelessly jammed. No one would ever get out of here unless order could be restored.

Into the jam waded Cathcart and Foley, clubbing right and left with their pistol butts. They reached the tunnel mouth, but were swept aside by the milling throng. They shouted, but could not make themselves heard.

Then Cathcart fired his weapon at the ceiling. Splinters of rock fell, and the echoing sound of the shot reverberated through the cavern. The noise halted the crowd momentarily, and they surged back in unison away from this new menace.

"Listen to me," Cathcart commanded. "We're armed, and we'll shoot to kill!"

The crowd began to quiet down. But, scanning their heads, Cathcart saw a gun leveled at him. He promptly potted the fellow.

"Now will you listen?" he bellowed. "Fall back there, all of you, or I'll shoot again. Anyone with guns, please come forward and help." Several men elbowed their way out and took their places beside him. "Good!" Then, to his new helpers, "Now you force the crowd back, and line them up in single file. Shoot anyone who leaves the line, and shoot to kill."

Speedily, the line was formed. Foley, at the tunnel mouth, let them through one at a time.

"Anyone seen Donna Frain?" Cathcart shouted.

A shout came, "She's here."

"Let her come forward!"

An angry grumble arose. "Why should she get out ahead of us?"

" 'Whey should she get out ahead of us?' " Cathcart repeated. "Because the sooner she reaches the controls, the sooner we'll all be safe. She's the only person who knows how to stop the rain,

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

and turn the light and air on again."

"Let her out! Let her out!" cried the fickle crowd; and Donna Frain, in a much torn and bedraggled wedding gown, was passed forward.

She raised eyes full of gratitude to her rescuer. "Forgive me for having doubted you," she begged. "I've been a beast."

Cathcart's heart went out to her. But he had responsibilities to these people. "Donna," he said sadly, "I hate to have to suspect you. But before I let you out of here, you've got to make me a promise."

"Such impudence!" She bristled.

"No promise, no get out."

"Well, what is it?"

"That your troops will not interfere with my evacuating this cave, once you are on the outside and in command again."

She nodded.

"On your word of honor."

"On my word of honor."

"Okeh, Mickey, let her through. Goodby, Donna, I'll be seeing you." And he turned his attention back toward supervising the line; as, head held high, the girl swept by him.

FINALLY the last person in the line was through. The men who had helped Cathcart hesitated. "All right for us to go now, boss?" one of them inquired.

"We ought to search the cave for the injured," Cathcart asserted. "A lot must have been trampled on."

"Nuts!" cried Mickey Foley. "Hell's probably a-popping outside; and the sooner we get out, the better. If the Town 13 hospital is still in operation, we can send some stretcher-bearers in here after the wounded. If not, then the wounded might as well die in as out. I read in a medical column once that no one but a doctor ought ever try to move an injured person."

They all crawled out of the cavern, and out of the house in which the tunnel ended.

It was day outside, broad daylight. Neither the air-supply nor the bright diffused light above the clouds had been turned off, nor was it raining. They found the doctors, nurses and internes of the local hospital sticking to their posts, though every other member of the community, both lay and official, was streaking toward the Headquarters City in a wild panic.

Hurriedly they told the hospital staff about the injured in the cave.

Then said Cathcart, "We've got to head off this stampede somehow."

"What's the matter with leaving that to the authorities?" Foley objected. "You seem to think you're some sort of a superman!"

Cathcart grimaced. "I made this gang of Communists listen to me once, didn't I? They'll recognize me and do it again."

"But how'll you get ahead of them? Every auto in this town has been stolen."

"I've a car that they won't have taken, down the road a ways. Come on."

So the two of them set off at a dog trot out of town. Cathcart found the car still standing where he had left it. It was a simple matter to replace the distributor-head.

Then he drove away from the main highway, and took a less direct route which was not choked with refugees. And he forced the car to its utmost.

"I ought to get to a telegraph station, and send in an account of all this," Foley lamented. "Oh, boy, what a story!"

It was the only remark by either of them, as they roared along.

When they reached Headquarters

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

City, Cathcart slowed down and glanced at his wrist-watch. "Five forty-five," he announced. "Nightfall in fifteen minutes. And then what?"

THERE were no guards at the usual posts on the outskirts. All the streets were deserted, except for refugees straggling in. Abandoned automobiles blocked the streets. Leaving their car, Cathcart and Foley got out and made their way on foot toward the Administration Building. It too was empty.

They turned toward the building which housed the "status-changing machine" against the face of the barrier wall. Cathcart glanced at his watch again. Six fifteen, but still daylight!

"Someone is asleep at the switchboard," was his tight-lipped comment.

Foley chuckled. "I've got a better explanation than that. Miss Frain has phoned them to leave the lights on. That's one advantage of a 'controlled economy.'"

Here the streets were pack-jammed with a surging mob, as uncontrolled and panic-stricken as the one back in the Cavern of the Populists had been.

Cathcart and Foley recognized a number of their former comrades; and they, recognizing their saviours, let them through. It was as Cathcart had said. If anyone could quell this riot, it was she.

Finally he and Foley edged their way to an open space. In spite of pushing from behind, the front lines of the crowd were holding back in evident terror of something more fearsome ahead.

Ringed about the face of the building was a semi-circle of soldiers, armed with machine-guns, rifles, and hand-grenades. And behind them on the steps of a doorway stood Donna Frain (in trim black uniform again), Professor Freundlich, and a small group of grim looking Inspectors.

"We're not afraid of their guns!" shouted someone in the mob. "Come on! We'll die here anyway, when they turn off the light and the air."

CHAPTER VIII

The Death Ray

THE mob began to edge slowly forward.

Donna Frain took a microphone in her slim hand, and her clear calm voice sounded over a loud-speaker high up on the face of the building: "Colonists! Look what time it is. Nearly half past six, and the daylight is not yet off. Is not this evidence enough of my good faith?"

"What did I tell you!" Foley whispered to Cathcart.

Donna continued: "You are all perfectly safe; but the one small status-changing machine is the only exit from this world. If you try to rush it, many will be killed by my guards. And, even if you finally overpower my guards and reach the machine, you'll jam the machine and wreck it, and then none of us will ever get out of here alive."

"Let us out!" a frantic voice shrieked somewhere in the crowd. The cry was taken up and echoed, drowning Donna's words. "Let us out! Let us out! Let us out!"

Cathcart jumped in front of the crowd and held up his hand.

"It's he! It's he! It's he!" cried scattered voices. The hubbub quieted somewhat.

"How many of you are Populists?" he shouted.

There was no answer.

"Don't be afraid to speak up!" he called. "I'm your leader. I got you out of the cave, didn't I? Well, I'll let you out of here, too. All who were in

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

the cave, hold up your hands." A few hands shot up. "Come on! All of you!" More hands.

Then toward the group on the steps, Cathcart called. "And I got *you* out of the cave too, young lady; don't forget that."

An angry rumble arose in the crowd, interspersed with some laughter.

"Hands again!" Cathcart shouted. This time quite a number showed. "You who are holding up your hands —you at least are Populists. Why aren't we all Populists? For it is only by sticking together that we can win our freedom."

"Shall I shoot him down?" asked one of the machine-gunners grimly.

But Donna hurriedly shook her head. "No. Let him speak. I myself will deal with him later."

"Everyone hold up your hands!" Cathcart commanded. The crowd obeyed, almost to a man. "There! Now we are *all* Populists! Are you with me?"

"Yea!" howled the crowd.

Mickey Foley snorted contemptuously, "Now give three rousing cheers for old Alma Mater."

But, ignoring this sally, Cathcart turned back toward Donna and her group. "What have you to say to that, young lady?"

Cheers from the crowd.

"Merely this," came her clear voice out of the loudspeaker. "As I was about to inform you when I was interrupted, these guns are not my only defense. Your leader there has doubtless told you what a great scientist he is." There was bitter scorn in her voice. "Well, a greater scientist, his teacher, stands here beside me. Between you all, and me and my guards, is an impenetrable wall of force, set up by Herr Doktor Freundlich. If you should attempt to rush our position, my machine-guns do not need to fire upon you, for the wall of force would destroy all of you in a puff of smoke as fast as you reached it. So now will you return peacefully to your homes, or shall I give the world to advance the death ray and annihilate you?"

The crowd swayed backward.

"Do you think she's got a death ray?" Foley whispered.

Cathcart considered. "I doubt it," he declared. "Freundlich had nothing like that in his laboratories when I was with him. There hasn't been time enough for him to build one since Donna escaped and reached here."

The crowd began to rumble ominously. Someone shouted, "Cathcart has betrayed us! He let her free!" And the mob took up the cry, "Traitor! Traitor!"

"That little fool of a Donna!" Cathcart gritted. "I had them eating out of my hand, and now she's spoiled it." Then aloud he shouted. "The death ray is a lie! A fake! I worked for Freundlich. I know every item in his laboratories. He has no such machine."

"No?" came Donna's cool voice out of the loudspeaker. "Observe."

THE door of the building opened here and two soldiers emerged, carrying between them a blindfolded struggling figure, which they forced down the steps, and through the cordon of machine-guns. There they halted. The crowd watched fascinated.

Then they heaved the figure suddenly away from them. It vanished in a puff of smoke.

A long-drawn gasp escaped the crowd.

"The she-devil!" Cathcart exclaimed under his breath. Then aloud he shouted, "All right. I was wrong. But is not this an added reason for

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

our sticking together? Against such weapons, only unity can prevail. I'll pit my own science against that of the great Doctor Freundlich."

"Cathcart! Yea, Cathcart!" cried several voices approvingly.

"Are you with me?"

"Yea!" boomed the fickle mob, led off by Mickey Foley. "Yea! Yea!"

Turning proudly back toward the group on the steps, Cathcart called, "Lady, will you let me through the veil to discuss the terms of peace?"

She nodded, and Doctor Freundlich opened a switch beside him.

"Want me along?" asked Foley.

But Cathcart shook his head. "You stay here and carry on. The mob may get suspicious if I don't leave a hostage." Then, to the crowd, "Mickey Foley here is in charge until I return." Cathcart stepped forward.

Ignoring Donna, he turned to his former patron. "Dr. Freundlich," he asked in admiring tones, "how did you devise this force-barrier and set it up so quickly?"

The little man beamed. Then whispered, "My young friend, it was as you would say, all a bluff. There is no force-shield."

"But the man whom we saw destroyed?"

"A mere dummy, filled with silver-flash powder. But it served to hold the mob in check."

"Dr. Freundlich," Donna weakly snapped, "you talk too much!"

Cathcart turned toward her with surprise. Then pity. "You poor kid!" he exclaimed. "You're tired. And I've been thinking you heartless. I'm glad that the force-screen wasn't real."

She swayed. Cathcart caught her.

"Careful, son," cautioned Freundlich. "The crowd is watching."

"Damn the crowd!" Cathcart exclaimed, drawing her closer.

"Oh, Bob, I'm so tired," the girl breathed, nestling against him. "I was trying to carry on as Dad would have done, but I guess it is too much for me. Inspector Cathcart, take over."

"Hey, what's the big idea?" yelled someone in the impatient crowd.

Cathcart seized the microphone and held it in front of the girl's face. "Stiffen up," he urged her. "Show 'em you've still got plenty spunk. And repeat after me. I, Donna—"

She looked impishly up at him, and covered the mike with her hand. "—do take you, Robert?"

"Hell, no!"

She colored.

"I mean not just now," Cathcart hurriedly added. "We've got to get this war out of our hair first. Say: 'I, Donna Frain, pledge my word of honor to get all you people out of this colony just as fast as is feasible.' "

SHE repeated the words and continued, "Meanwhile I guarantee to maintain light and air, and hold off the rain. And to show my good faith I agree to live among you as a hostage until all this is accomplished."

"What more can you ask!" someone in the crowd cried out.

"Three cheers for Donna Frain!" shouted Mickey Foley.

The cheers were given.

Cathcart took the microphone. "And now, fellow revolutionaries," he said, "in order to show the good faith of us Populists, let us return to our homes. Those of us who live too far to travel back there tonight will be lodged in the barracks, or quartered in homes here. Those who live in nearby towns will be taken by bus and official cars." Turning to one of the officers beside him, he commanded, "March the machine-gun unit back to their barracks."

"Is it safe, Miss?" the officer ob-

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

jected, doubtfully staring at her.

"Obey him," Donna listlessly replied.

"Now, comrades," Cathcart continued, "the death-ray is lifted, and the troops are dispersing. Do any of you still wish to run for the exits?"

Several men started eagerly forward from the edge of the crowd.

"Yellow!" shouted Mickey Foley. The crowd took up the cry, "Yellow! Yellow!"

The men slunk back again.

"All right, comrades," Cathcart sung out. "Get going. Report at the Administration Building for quarters or transportation. I want volunteers to run the cars. Here you, Inspector Jenks, take charge of assignment to quarters. You pick out chauffeurs, Inspector Hansen. Inspector Petzold, take charge of transportation."

The crowd began to break up.

"Just a minute," Cathcart shouted. He glanced at his wristwatch. "It is now seven thirty. The sun will set at eight tonight by special dispensation."

A hearty laugh went up from the crowd. Cathcart turned to Donna Frain. "Please get the control-room at once by deferred telephone, and order them to shut off the ultra-violet lights at promptly 8:00 p.m., our time."

"You know about the lights, and how we telephone the earth?"

"I know a lot of things, young lady."

"I wonder," she mused.

TAKING Donna by the arm, Cathcart led her down the steps and toward the Administration Building. Mickey Foley joined them.

"Boss," he exclaimed, "the marines have landed, and have the situation well in hand."

Donna Frain stiffened and shuddered. Then relaxed and smiled sadly. "My poor dear father is dead," she said, "and so someone must bear the title of 'Boss' until we clean up this mess which his delusions of grandeur have created. So why not let Bob here be the Boss?"

"The title should pass by heredity to the Boss's daughter," Cathcart objected, as they entered Donna's office.

"And then by marriage to her husband," Donna added in a low voice.

"Why, I believe the woman is proposing to me!" Then hurriedly, "And I accept before she withdraws the offer." He slipped one arm around her waist and drew her close.

Dr. Freundlich too came in. Donna put through a deferred call for nightfall at eight.

Then Freundlich, his pale blue eyes beaming on Donna and Cathcart and Foley, asked, "And what of the threatened European invasion?"

"You knew of that too?" Donna exclaimed in surprise.

The three men nodded.

"I tried to dissuade Father," she said, "but he insisted on his price. I am now prepared to repeat his offer to save America, but I shall insist upon another and quite different price."

Cathcart stared at her with surprise. "You too? Why, I thought—"

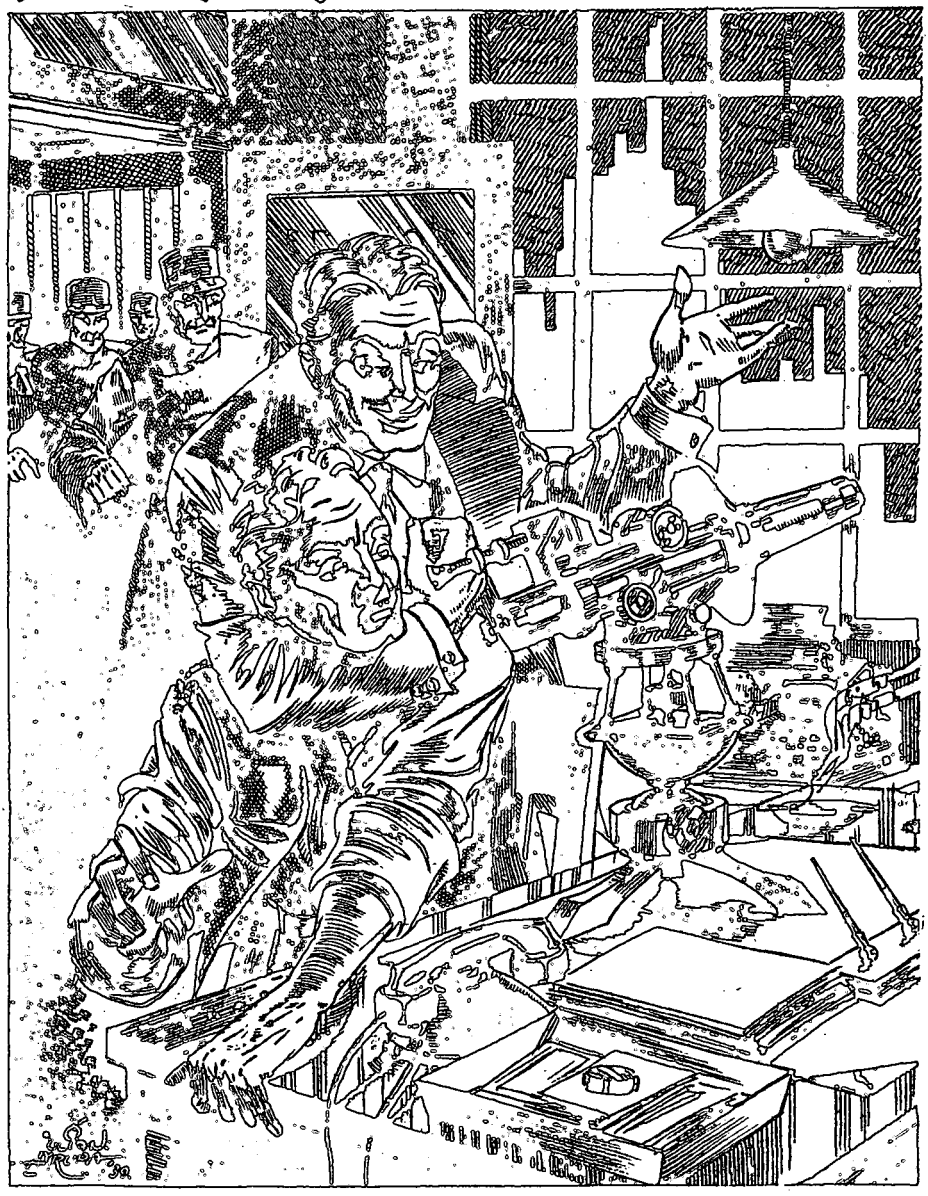
"You thought I was more patriotic than my father? And you were right. My father used his great scientific powers selfishly; I intend to use them for the welfare of humanity. So my ultimatum is that America cede to the Frain Industries all the desert land in North Dakota and Montana, in exchange for this colony. We'll move our colonists there, and start afresh. What Father could do with the barren floor of a warehouse, I, with you three men to help me, ought to be able to accomplish with a mere desert."

"What a story!" Mickey Foley exclaimed.

"What a girl!" cried Cathcart, gathering her to him.

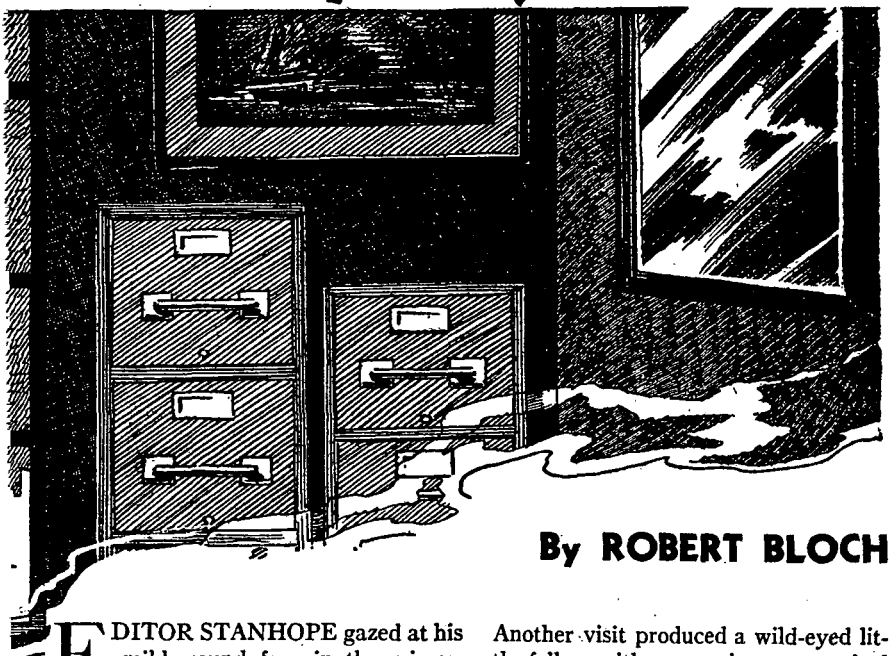
LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The Man Who Walked



LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Through Mirrors



By ROBERT BLOCH

EDITOR STANHOPE gazed at his mild, round face in the mirror. He noted the redness of his eyes, the tight lines around his usually placid mouth, the dishevelment of his ordinarily orderly blond hair. He looked like the devil.

Ordinarily, the editor enjoyed receiving visitors. Some of the magazine authors were old friends of his; some of the fans were welcome guests in the office. But today had brought out the screwballs.

Stanhope sighed. Running a science-fiction magazine had its drawbacks. There were eccentrics interested in the field, and at times they got *ideas*. One day a man had come up to the office with a perpetual motion machine, made out of rubber bands. Another visit produced a wild-eyed little fellow with an egg-beater attached to an electric motor. He had set the contraption up in the editorial office and insisted that Stanhope look into the revolving blades of the egg-beater and see the Fourth Dimension. It was exasperating. Today he had been visited by no less than three of these ninnies; all armed with pages of formulae and garbled quotations from Charles Fort or *Tertium Organum*. Editor Stanhope had been quite diplomatic, but it was a strain. And stories! "Every

To Stanhope's office he came, bearing a strange machine. Obviously he was mad, his machine a fake, and yet . . . .

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Story Scientifically Accurate" read the lines on the cover of the magazine. It was Stanhope's sole standard. And the manuscripts he read today were impossible.

There was the old story of the man who went back in time; written by somebody who probably thought a time-machine was some kind of alarm-clock.

There was a novelette in which the city of New York was destroyed by Martians, and once again the Empire State Building fell down. Editor Stanhope firmly resolved never to buy any more stories where the Empire State Building fell down. Why couldn't they pick on some other building for a change? Even the Chicago Tribune Tower would be a novelty; but no, it was always the Empire State Building that had to go boom. He wondered what Al Smith thought when he read all this.

There was a story about an atomic disintegrator ray; sound in theory, but with human characters so wooden and stilted the editor wished to heaven they'd turn the ray on themselves.

It was discouraging. But stories must be bought; good stories. "Every Story Scientifically Accurate." Editor Stanhope scowled into the mirror, then read on grimly. He was half-way through an absurd item about a space-ship with wings, meanwhile thinking of how Stanley Weinbaum must be turning over in his grave, when the door opened.

Stanhope looked up. He sighed, under his breath.

The stranger in the doorway did everything but carry a ten-foot sign on his chest labeled "Screwball."

There were all the signs. The tangled mop of black, curly hair straggling over the high forehead. The deep-set, blazing eyes. The cynical half-sneer of the mouth. The untidy clothing. The excited movements of his hands, the quickened breath, the nervous blinking of the eyelids. Worst of all, the stranger carried a machine under one arm.

STANHOPE knew the type. He was not prejudiced, he was a reasonable man; but long experience had taught him that in some cases it did not pay to be overly tolerant. There are cranks and eccentrics in every field; but scientific cranks are by all odds the worst.

After all, it had been a hard day. The editor resolved to be firm.

"Good afternoon, sir. What can I do for you?"

"What can *you* do for me? Don't make me laugh! I'm going to do something for you." The smiling stranger advanced into the room.

"You're Stanhope, the editor of this rag, aren't you?"

"I am Mr. Stanhope, yes. But see here—"

"Never mind." The stranger waved the words aside with an airy gesture of his left hand as he sat down in the chair opposite the desk and deposited the shining mechanism he carried on the table. "Mr. Stanhope, my name is Volmar Clark. You know of me, no doubt?"

"Can't say that I do."

"What?" The stranger's eyebrows became two swords of accusation. "Never heard of Clark, the man who left the Institute after telling them all off for the pack of fools they were; the man who was called in to advise on the building of the Pasadena Observatory lens in spite of it all? Never heard of Clark? You're like all the other dolts; gabbling of H. G. Wells and Sir James Jeans and a few other publicity hounds and ignoring the quiet work of the scientific great under your very nose."

"Wait a minute, Mr. Clark. I'm very

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

busy and—"

"One is never busy in the presence of Genius. But you've never heard of Clark, you say? You know Einstein, don't you? Well, forget him. In years to come, Clark will outshine Einstein as the sun outshines a penny match!"

Stanhope winced. He was as patient as the next, but he couldn't afford to waste time any longer. This schizophrenic who referred to himself in the third person was impossible.

"You'll have to excuse me," Stanhope said, rising.

"Oh that's all right. I'm not blaming you for anything," the man called Clark announced. "It's only that I thought you might remember me. About a year ago, when I was still naive enough to wish for earthly recognition, I did a foolish thing. I embodied my scientific thesis, rejected by the academic ignoramuses of the Institute, in a story and sent to you. I thought you might remember it; certainly it was the best thing of its kind ever written, and I don't ever see how it could have been rejected."

Stanhope lost his tact.

"What was the name of the story?"

"You don't even recall the name of the most startling bit of literature ever penned? Mr. Stanhope, I am truly sorry—for you. The story was entitled *Fourth Dimensional Mirror.*"

ABRUPTLY, Stanhope recalled. How could he ever forget? *Fourth Dimensional Mirror!* A rotten title. But the story itself was far worse than the title implied. It had been something Stanhope had really tried to forget. Sheer babbling lunacy—a rambling, incoherent tale which purported to contain a theory about mirrors being the gates of the Fourth Dimension. It had been filled with wild explanations of the laws of optics and how the eye was connected by electric impulse with the brain so that light-waves and thought commingled to produce awareness of the Fourth Dimension. There was something about a field of force set up on the mysterious reflecting surface of a mirror, which could be physically entered by the human body. A man walking through a mirror into the Fourth Dimension was by all odds the most absurd notion Stanhope had ever encountered in all his reading of science-fiction. He had firmly rejected the tale on his usual grounds: "Every Story Scientifically Accurate."

"I remember now," he said. "I recall rejecting the story."

"Why?" The word was a jet of flame.

"Why? Why? Because it was implausible, Mr. Clark. Here" Editor Stanhope picked up a copy of the magazine from his desk. "You know our by-line, our trademark, as it were. 'Every Story Scientifically Accurate.' I'm sorry, but your story wasn't."

Clark's beady eyes flickered as he suddenly grasped the magazine and crumpled it convulsively between his fingers.

"Every Story Scientifically Accurate!" His tone was purest venom. "You call this stuff science? Robots and Martians and fungoid beings and opium-smoker's visions? What if the so-called theories are mathematically correct? Does that make these stories accurate? They are fiction, not fact. And science is factual. How can you draw the line?"

"I haven't time to go into that just now, Mr. Clark."

"Of course you haven't. Neither have I. Neither did the men at the Institute when I showed them my theories no paper. They forced me to resign. And yet they respected my pre-eminent authority in the field of optics enough to call me in on the telescopic lens job;

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

but they refused to believe the truth. I wrote the truth up in the form of fiction and even you couldn't swallow it as mere imagination. And yet it is true —truer than all this Martian humbug or space-flight nonsense you insist is within the pale of possibility. But I'll show you! I'll show them all! What Einstein and De Sitter hinted at, I shall reveal. Every story scientifically accurate, eh?"

Stanhope thought vaguely of running out and getting help. This man was insane. He might become violent in his megalomania; this unnatural fuss about the rejection of a story a year ago was obvious proof of his pronounced unbalance.

"What makes stories scientifically accurate?" Clark was shouting. "I ask you?"

"Proof," muttered Stanhope, trying to avoid the too-bright gaze of his demented visitor.

"Proof? Exactly. And I've brought proof." Clark pointed at the machine.

"You ask me why I didn't go to the Institute, or to higher authorities with this machine. Simple. I've spent a year working on this, a solid year! I spent twenty before that in perfecting my theory and was laughed at for my pains. So I spent one year more building my proof; my machine. Now instead of taking it to the scoffers higher up, I decided this time to start at the bottom; with you, the most insignificant of my critics. You, and your 'scientifically accurate' stories couldn't swallow my theory. Therefore you shall be the first to swallow my proof. You shall be my guinea-pig, Editor Stanhope. How would you like to see that Fourth Dimension your ignorant authors are always babbling about?"

STANHOPE was really afraid now. This madman was larger, stronger than the slight-bodied editor, and he was obviously aroused. Stanhope must humor him, keep him talking until the art-editor or one of the stenographers happened in and could get wind of the situation. Therefore the editor tried to smile. He caught sight of his haggard face in the mirror and shuddered.

"Going to send me to the Fourth Dimension, eh?" he said. "How?"

"You read the story. Through the mirror, of course."

Stanhope wanted to be diplomatic, but his natural honesty rebelled at this. He was, first and foremost, an honest man; an honest editor. And his creed, "Every Story Scientifically Accurate" was written on his heart just as firmly as it was emblazoned on the cover of his magazine. He couldn't stomach this statement.

"Clark, be sensible. Send me through the mirror? Why that's childish fairy-tale stuff. Like Lewis Carroll's *Through the Looking-Glass*."

"Exactly," Clark answered, a smile on his pale face. "That's where I got the idea. Oh, you needn't scowl so. Lewis Carroll — what do you know about the man? He was a mathematician, writing children's books under a pseudonym. Nobody ever noticed the quiet little fellow in real life, yet *Alice in Wonderland* and *Through the Looking Glass* are perhaps the most unique literature ever written in themselves. Not only children but adults have found keen satire in their pages; and more than that, the two books are still conceded to be the most accurate descriptions of dreams ever recorded. Do you understand what I mean? Lewis Carroll, the shy, furtive little schoolteacher, was one of the world's greatest psychologists. And mark you, he was a mathematician as well. He was no fool — and when he sent Alice through the mirror into the dream-

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

world he was basing fantasy on the most advanced and abstruse mathematical logic ever conceived. Even today there are those who link dreams with the Fourth Dimension; the mathematical symbols of each are interchangeable. Where but in dreams, or the Fourth Dimension is body and consciousness altered? Where does life take on new and varied forms of expression? I wouldn't be such a fool, if I were you."

Stanhope lost his temper for one desperate moment.

"Get down to facts," he shouted. "Where is this machine and what does it consist of? Stop talking about dreams and fairy-tales."

"That's right. The editor wants his scientifically accurate proof, doesn't he?" Clark's voice was mocking. "Very well. Here's the machine on the table."

Stanhope turned to gaze closely at the contrivance. It was a long, gleaming silver tube mounted on a pedestal base from which jutted a series of levers and buttons. Superficially, it resembled an ordinary microscope. Clark picked up the instrument, sat down on top of the desk, and cradled it in his lap. His hands unconsciously caressed it, and Stanhope watched the play of his long, slim fingers.

"Just what does this machine do?" the editor inquired.

"Just what the machine in my story did. You look through the lens, adjust the focus to correspond with your own vision—that is, the rate of speed by which light-rays impinge on your retina and are translated into electrical impulse by your brain. This sets up an electrical rhythm which in turn is acted upon by the system of angled lenses in the tube. Then you gaze through the tube at your image in a mirror and you become translated into the Fourth Dimension by means of electrical contact of duplicate focii. In other words, when you apply your eye to this tube, it becomes merely an extension of the tube itself; a necessary part of the machine linking your brain directly with your image. The force-field draws brain into image, and there you are."

"In the nut-house," Stanhope wanted to add, but he thought better of it as he gazed into the fanatical eyes of Volmar Clark.

"BUT how did you build this; what are the principles?" asked the editor, sparring for time. Why didn't some one come in and rescue him?

"Let us be scientific, by all means," purred Clark. "Perhaps I can explain it by questioning you. To begin with, you believe in scientific accuracy, don't you?"

Editor Stanhope nodded.

"And yet you'd say my principle of mirror-images being Fourth-Dimensional projections of three-dimensional objects is not founded on scientific fact, and is therefore absurd?"

Again Stanhope nodded.

"Very well. Let us see whether or not you can give scientific reasons for your disbelief. I say you look through this tube into the mirror and become drawn through it."

"A solid man can't enter his own reflection," Stanhope parried. "That mirror on the wall is nothing but plate glass, backed by a thin coating of mercury. It merely reflects light from the smooth, polished surface of the glass."

"Very good, my skeptical editor. Very good. And now would you mind telling me something about glass?"

"Why, surely—"

"Scientifically, what is glass? Is it a metal?"

"Well—"

"Isn't it true that glass has no crys-

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

talline structure? All metals have."

"Now, wait a minute."

"Is glass a liquid or a solid? What is its definite melting point?"

"I don't know that."

"True. Nobody knows.* No scientist knows, any more than he knows the exact nature of electricity, for instance. And neither you nor Einstein can discover the make-up of its molecular structure."

"Yes, I'm afraid you're right," the editor confessed.

"Of course I am. Glass is a mystery. Like electricity, man can produce it, control it within limits, and even use it in a few simple tasks which do not even begin to impinge on its possibilities. We can guess that thought is electricity, and that life is perhaps an electrical manifestation. No one has ever bothered to theorize on the mystery of plain, everyday glass; the greatest key to the secret of light. The strange substance through which we see the stars is the link between light and electricity; between seeing and being.

"And properly handled according to mathematical formulae, I say that a man can enter the peculiar molecular chaos of glass and enter through its planes into the Fourth Dimension. Man co-exists; he appears before himself in a mirror. The only reason the mirror image isn't real is because his brain is absent from it. His three-dimensional consciousness cannot penetrate a Fourth-Dimensional reflection — but my lens does that. By linking his eye to the lens to the image of his reflection, and by thus directly connecting brain to image, the electric structure of thought impinges on the mysterious planes of glass and he is drawn through."

* Glass is not liquid, not solid; not metal, not crystalline; there is no exact chemical formula for glass; its specific gravity varies from 2.4 to 5.6. —Ed.

Clark's eyes blazed.

"There's scientific accuracy for you," he challenged. "Refute me if you can. Everything I've asked about the nature of glass, and about the nature of reflection cannot be answered by science. I tell you I'm right."

"Negativism isn't proof," Stanhope replied. "That mirror over there may be all you say it is, but your machine is impossible. Have you ever tried it out?"

"I just completed it, under considerable stress. And I haven't tried it yet, thank you. I don't want to enter into a mirror. Beyond my own reflection and that of this room, I cannot dream of the strange world which inhabits the peculiar structure of ultra-dimensional light. But that's why I came to you, my editorial scoffer. You're my guinea pig, as I said. You shall look through the tube with your skeptical eye and find out the truth."

"What?" The maniac *was* convincing. Editor Stanhope felt a shudder he strove vainly to repress. For a moment the man's wild whispers had convinced him that he lived in a cosmos governed by strange laws. But it was nonsense. It had to be. Every story scientifically accurate — theory rejected.

CLARK read skepticism in the editor's face.

"Well," he challenged. "You don't believe me, so you needn't be afraid. Look into my harmless little tube. Adjust the levers until you see perfectly; until you see your reflection in the mirror. Then watch the lens-angles as they revolve, as your brain spins *into* the tube, your consciousness flows *through* it and into the mirror. Go ahead."

Stanhope began to perspire. Clark towered over him, hands twitching.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

He looked as though he might spring at his throat. The white face was contorted.

"What would become of my real body if I was—drawn in?" he asked, trying to keep his voice calm, trying to stall for time.

"It would disappear, naturally. You would be real, then, in the mirror; in the strange molecular structure of the glass, which is the Fourth Dimension. We co-exist in the Third and Fourth Dimension, you know; even Einstein admits that. But we feel alive in the Third because our consciousness is tridimensional. Once that consciousness, by means of light-action on the electrical impulse we call thought, is transformed into our image, we live there. You'd disappear, into the room reflected in the mirror. What lies beyond we cannot say. But you shall find out." Clark's voice rose to a half-scream. "Look!"

He grasped the editor's shoulder and bent him forward toward the gleaming instrument. Stanhope struggled silently. The man was strong. His fingers forced—

And then there was uproar; welcome pandemonium.

The two men had come in very quietly, for all their burliness. They were efficient despite their strength. Without a word they had crept up behind Volmar Clark, and now they were upon him. Soundlessly they dragged him off the table and locked his arms behind his back. Clark gasped madly, but he was no match for the determined and capable captors. They held him firmly.

Editor Stanhope looked up. One of the men touched his hat.

"Sorry he disturbed you, sir. We've had orders to bring him in."

"What?"

"This is Volmar Clark. He's been in our charge at the Sanitorium for the past year; ever since he finished the observatory lens job. He had a—breakdown afterwards, and his relatives saw to it he was put in our care."

"Don't listen to the fools," Clark hissed. He lunged, but a quick jerk of his captors' arms brought him to a standstill.

"Usually he's very quiet. We allowed him to build his laboratory in his room at the Sanitorium and he's been quite happy building some kind of machine or other. But today he sneaked off. Luckily we traced him down here at once; he let his destination slip to the nurse. Sorry he's been a bother—but I'd appreciate it if nothing was said to the authorities. He's in a private institution, and in view of his past position, his family would be grateful for secrecy."

Stanhope nodded.

The man turned. "Come along, Mr. Clark," he said. "Back to the laboratory."

It was the cue for the maniacal scene. It was the point where Clark should have gone berserk and collapsed, to be dragged screaming from the room. By dramatic tradition it should have happened. Instead, Volmar Clark, mathematical genius and optics authority, drew himself up to full height and smiled at Editor Stanhope.

"All right," he said. "Sorry about our little interview, Stanhope. Another minute and I'd—well, never mind. Wish you'd remember what I told you, though. I've worked for a year."

With that he turned, and the two efficient-looking men escorted him from the room.

Stanhope sank into his chair behind the desk and mopped his brow. That was that. What a day!

Thank heavens, all over now. He glanced at his face in the mirror once

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

more. He *was* haggard. No use to resume manuscript reading; it was time to go home and rest. No use to submit his dazed brain to the test of maintaining that "Every Story Scientifically Accurate" standard. Not now.

Abruptly his eyes fell on the silver object which still stood on the desk-top. Clark's lens. He'd left it here! The guards had never noticed it. Clark hadn't either. Or had he? Had he left it here on purpose? Editor Stanhope remembered the cryptic parting words.

HE picked up the magazine once more and gazed unseeingly at the cover. "Every Story Scientifically Accurate." He smiled, wearily. Well, Clark's story wasn't scientifically accurate. Mystery or no mystery, man didn't walk through glass mirrors into new worlds. The theories didn't hold. No scientific accuracy. He rejected the idea as he would a story.

But wait a minute. That madman had been a genius, once. He was still sincere. As an editor, Stanhope admired sincerity. He wouldn't reject a story without reading it. Could he wholly reject Clark's theory without testing it? The test lay merely in looking through the lens.

When Clark was forcing him, Stanhope had been afraid—charmed by the words of the demented man. Now his fear had passed. He could look through the lens calmly, discover just what principles actuated the mechanism. Why not? Here it was.

Idly, Stanhope bent over the tube, one hand still clutching the magazine. He half-rose and squinted down the long chamber, then raised the cylinder and aimed it at his image in the mirror. He peered down. He saw nothing but cloudy gray. He remembered the lever system. His free hand casually twirled first one lever, then another. He turned and adjusted.

Ah. There it was. His face, his body in the mirror. The room in reflection. Why, this device didn't change the image at all! Clark was mad. He adjusted focus, as he would if peering into a microscope. How clear his image in the mirror was!

No. Not so clear now. It was blurring. Getting gray again. And—his eyes hurt. A series of flickering, brilliant lights seemed to run from the mirror up through the tube into his eyes; into the brain behind them. His eyes felt *glued* to the lens; his *brain* felt glued. He no longer had eyes. His brain was a part of the lens.

"Eyes and brain and tube all part of the machinery," Clark had said. But Clark was mad. Then he must be mad, imagining this!

The brilliant rays were brighter than ultra-violet. They moved *circularly* and Stanhope saw in *circles*. It was impossible, but he knew it was like that. The tube was filled with spinning lenses, all moving at queer angles, distorting the image he gazed at, sending blinding light that was not light, but electricity, into his brain. He couldn't look away, he couldn't *think* away. He felt one with the image beyond; felt himself slide into it.

For one climactic, dreadful instant he had the peculiar sensation of looking *out* from his eyes instead of *in;* the light-waves seemed to be reversed, flowing from his retina instead of flowing toward it. He felt as though he were in the bottom of the tube, looking up, instead of down. And then the image in the mirror grew brighter and brighter, and larger and larger, and Stanhope felt his body swim in circles of light.

With a gasp, he crumpled to the floor in the gray room.

He opened his eyes in a moment. He blinked rapidly. For a single gruesome

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

moment he thought he had been blinded. Then the brilliant mist passed, and he could see.

He rose from the floor, clutching the magazine. He breathed deeply. That damnable machine! Clark *had* done something with it after all; he had made a hypnotizing agent out of it. The bright reflecting surface of the mirror, viewed through twirling mirrors and lenses in the tube, acted as a focal point in the hypnotic process. That was what had happened. He'd hypnotized himself. Yes, glass and mirrors had strange properties, and light became electrical thought in the brain all right. But that Fourth-Dimensional theory wasn't scientifically accurate after all.

Stanhope laughed. He'd looked through the tube, and he hadn't entered the mirror and the reflection of the room in the Fourth Dimension. There was the mirror now, still in front of him. It reflected the room of his office, just as it always had.

Editor Stanhope glanced idly down at the magazine he still held in his hand. With wild panic surging up in his breast, he read the words on the cover. Strange words, words that could not be safe in reflection, words that bit into his brain.

EVERY STORY SCIENTIFICALLY ACCURATE

"Short Years And Long"

By J. F. Turner

IT IS an interesting fact that in our solar system a "year" ranges from less than three months to 248 times the earth's twelve-month period. Mercury, smallest of the nine major or primary planets of the solar family, is nearest to the sun and accordingly has the shortest year, a period of revolution of only 88 days. Next beyond Mercury is bright shining Venus, traveling in an orbit which gives it a year of 225 days. Following in the order of remoteness from the sun is this old, spinning globe of ours, and still more distant by many millions of miles the red glowing sphere we know as Mars. The latter planet completes its orbital journey in 687 days.

Strung out even farther into limitless space and with respect to solar distance are: gigantic Jupiter with its nine moons, taking close to twelve years to circumnavigate the sun; ringed Saturn, also possessing nine satellites, and covering the solar swing in 29 years; Uranus, performing a complete turn about the sunstar once in 84 years, and Neptune, having a period of revolution equal to 165 of the earth's years.

Finally, there is far flung Pluto, discovered as recently as 1930 through the use of photography. The earth's distance from the sun is some 92,900,000 miles (one astronomical unit), but Pluto exceeds this distance by about forty times. The orbit of this outermost member of the solar family is one of extreme vastness, and to describe its planetary path around the sun is a little matter which occupies Pluto for 248 years!

LICENSED TO MZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

WIVES IN DUPLICATE

AGHAST, Ray Lattimer saw two women in the televisor, and BOTH of them were identical—BOTH his wife!

By DON WILCOX

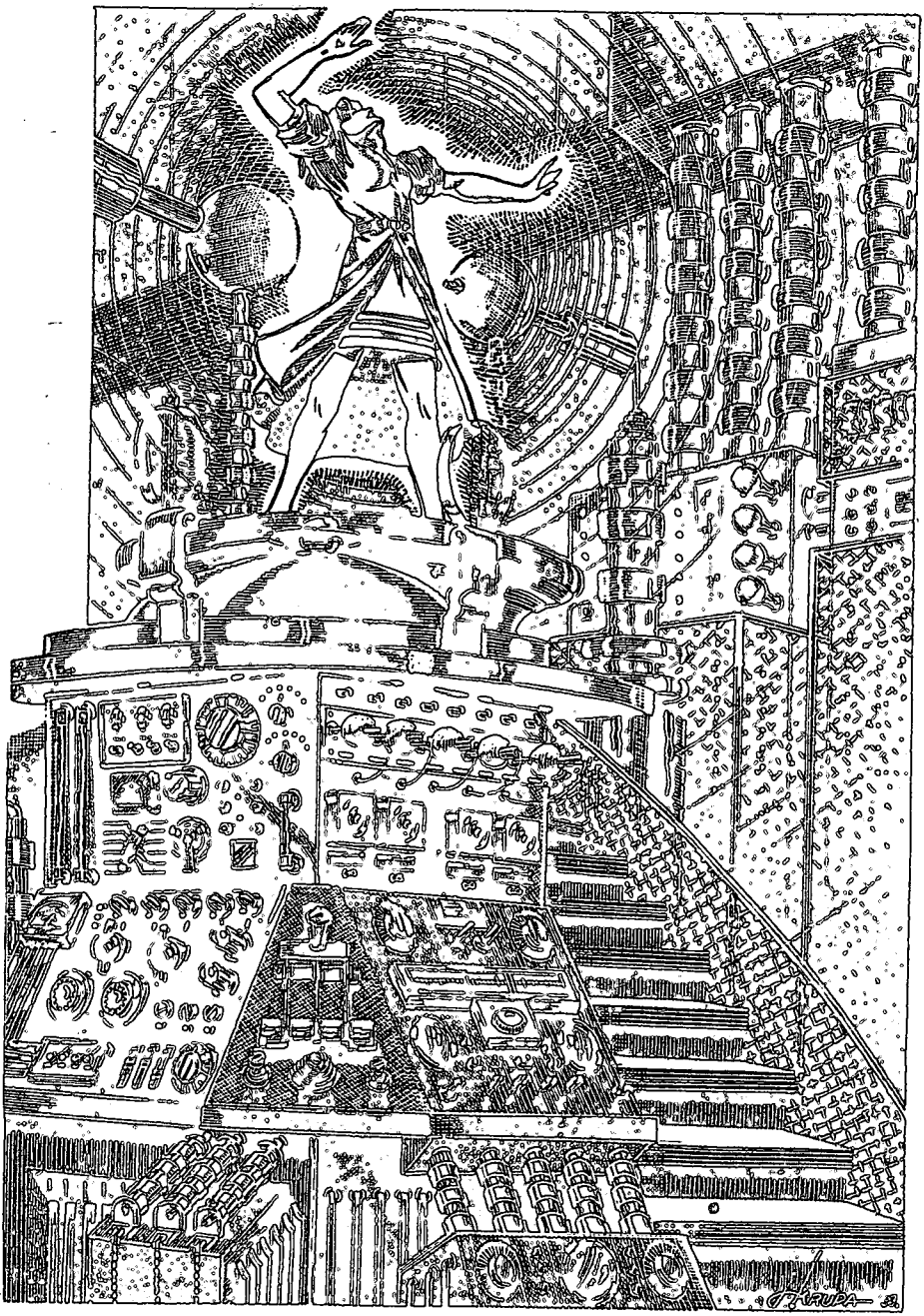
RAY LATTIMER, the youthful president of Radio Transit, Inc., scowled as he thumbed through the papers on his desk. With a disgusted groan that would have sounded like an approaching thunderstorm over an amplifier, he took up his desk pen and wrote a memorandum: "Bring Blougan to time."

His scowl deepened as he worked over the papers. With an angry snort, this time a crashing thunderbolt, he crumpled the first memorandum, seized the pen, and jotted: "Oust Blougan!" No use to keep a man in a high position after he's gone sour.

Ray had worked past the dinner hour. By this time most of the staff who were off duty had boarded radio transit cars and gone—through three hundred miles of space at the speed of light, to arrive at Professor Buchanan's party.

All employees of Radio Transit, Inc., had been invited. The professor was celebrating the first anniversary of the wonder of the age—transportation by radio! For a full year the famous Buchanan-Lattimer invention had been delivering passengers and freight through space instantaneously and, to Ray's great pride, without a single mishap. Unless certain sly maneuvers charged to Bart Blougan could be called mishaps. Blougan was a pain in everyone's neck, even if he was a director.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED



LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

A buzzer sounded. Ray touched a button and looked up from his papers to the televisor.

"Ray, dear—" Vivian, his young bride, was on the screen before him in full colors. She spoke softly. "Have you forgotten our engagement?"

He paused for an instant to admire her beauty. The abbreviated lines of her party costume were becoming to her shapely body.

"I'm sorry, Vivian," he said apologetically, "but you'd better go on to the party without me. I have a bad deal on my hands and I'll be stuck here for another thirty minutes. The report I've been waiting for finally came in, but it's a complete washout."

"Bart Blougan's again, I suppose."

"As usual. I'm going to see that he's ousted at the next meeting—which is likely to be tonight after the party. If so, I've got to be ready—with an ultimatum for Blougan."

"You know my sentiments," she said, laughing. He nodded. They had tried to treat Bart Blougan as a joke, but it was really no joking matter. The cunning efforts of the middle-aged, wolfish director to flirt with Vivian had become a constant annoyance. He would linger about on one pretext or another as if his presence were a favor to her. But all of Vivian's worries were trifles as long as her broad-shouldered, masterful husband was within a few steps.

"You hurry on to Professor Buchanan's and give him my apologies," Ray said. "And don't forget to call back when you arrive."

Vivian blew him a kiss and the televisor snapped off.

DON'T forget to call back. That little ritual had become a habit back in the days when Ray shuddered every time Vivian boarded radio transit. It was an instinctive distrust of allowing the human body to be resolved into radio waves, sent through space, and reorganized into human form at the receiver. Even after a year of faultless operation, radio transit to Ray's inventive mind was still full of unknown perils.

He stepped outside his office into the balcony that overlooked the vast, white-walled hall of power with its familiar smells and sounds of smooth humming machinery. The blur of steel cars spinning down the spiral tracks into the mouth of the transmitter told him the operator was on his job. Faithful Dwight. He had never made an error.

A few minutes later the televisor in Ray's office buzzed, and the young president of Radio Transit, Inc., knew that his wife had arrived safely. He touched the button. Vivian was again before him. Back of her low voice the music and laughter of the party were faintly audible.

"Everyone's here, Ray, and the party's in full swing," she said. "I hope you can come soon."

"I'd better," he laughed, "or Bart Blougan will be beating my time."

"Awfully worried, aren't you?" she teased; then with a turn of thought, "Oh, that reminds me. Blougan hasn't come yet. I noticed him hanging around there in the station a moment ago as I was boarding."

Buzz. Someone else was ringing for Ray's televisor.

"I'll see you soon," said Ray. "I have another call waiting, but I'll see that no one detains me."

Vivian blew him another kiss and snapped off.

As he reached to the television button to cut in the new caller, he had not the slightest premonition that anything unusual was about to befall him. The figure appeared on the screen. It was Vivian again. Her reappearance

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

shocked him. Before he had time to think *why* it shocked him, she began to speak. There was nothing unnatural in her voice; still, it expressed such a change in mood from her previous conversation that he gulped in surprise.

"Ray, there's been a mistake. I've come to the wrong place. I'm here at Space Ship Center. I told Dwight distinctly that I wanted to go to Buchanan's and here he's sent me eleven hundred miles in the wrong direction."

"You're — *where?*" Ray had heard but he could not comprehend.

"At Space Ship Center, here at the Union Station. I just thought I'd let you know I—"

"But you just got through telling me the party was in full sway—"

"No, Ray, I didn't say anything about the party—"

"But you just called me from there."

"How could I? I haven't been there. Dwight routed me the wrong way and I—"

"Wait a minute!" Ray was mentally jolted as if his universe had suddenly jumped out from under him. As he glared from the screen he saw that Vivian was not calling from the same room as before. There were no sounds of party music. This was a private television booth. What had happened? He could not believe that his imagination had simply played a trick on him. Could it be that—

"Don't look so blank," Vivian was saying. "It isn't as serious as all that. I'll come right back by radio and we'll go on to the party together."

"Wait, Vivian. Wait till I check the controls. Something's haywire." He tried to fight off his dazed feelings. "Probably just a slip-up. Give me your number there and I'll call you back as soon as I okay things."

He took the number down as she snapped off.

ANY of Ray Lattimer's friends knew that by nature he was more an inventor than an executive. He had to force himself to make quick decisions. But the present enigma might well have caught anyone without a ready course of action. The implications were coming into the clear, but it was hard to accept them. Unless his senses were playing tricks on him, Vivian Lattimer, his one and only wife, was in two places at once.

Appalled by the thought of an unspeakable technological possibility, he snatched up the telephone and dialed for Dwight. No one answered. He ran out of the office, through the long sweep of balcony to the control room at the passenger platform. No operator was there. A few passengers were strolling around, waiting for service, but no one was at the controls. Never had such a thing happened before—not since Ray's first official command: that no one should touch the controls except his own certified operators.

"Dwight! Dwight!"

No one answered.

"Dwight!" In his frenzy Ray had forgotten to make use of the telepage. The ticket agent reported the call, however, and in another moment the clattering voice of the telepage sounded throughout the plant.

"Dwight Richardson wanted at the control room. President Lattimer calling Dwight Richardson."

The swift three minutes of telepaging and searching gave Ray's suspicions time to shoot out on several sharp tangents, all of which gravitated toward the name of Bart Blougan. Only a few minutes ago, when Vivian left for the party, he had been here. Now it was apparent he was not here. Had the sly faced, nosy director pulled a fast one?

One of Blougan's malpractices had been originally responsible for Ray's

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

demand for certified operators. For in the early days of Radio Transit, Inc., Blougan had tampered with the controls. At first for his own amusement. Then, discovering in this new plaything a rich vein of private income, he had watched for his chances to engage in the unauthorized practice of "duplicating"—that is, multiplying the goods that went through, by switching on additional receivers. *

How much of this Blougan got away with Ray never knew; but once, at least, a case of gems of great value was involved. As the case had rolled into the transmitter to be radioed to Buchanan's station, Ray chanced to see Blougan step to the controls and touch two switches.

To be sure he wasn't misjudging Blougan, Ray had traced the results. He found that the jewels had arrived at two different stations simultaneously, just as he had expected. One box reached the addressee; the other Blougan sent for. A very neat trick for converting electrical energy into new tangible wealth. But Ray, already confronted by a wall of legal restrictions, clamped a tight lid on this practice. His franchise was for transportation, not manufacturing.

Blougan took the prohibition as a personal slap. He writhed. He brooded. He avoided speaking to Ray. At the directors' meetings he was a sullen child. Before Vivian he employed different tactics, trying to wedge his way into her confidence, sounding her out on matters of sentiment, feeding her taffy. It all looked very bad as Ray now turned it over in his mind.

Where might Blougan be at this moment? The switches in the control room were set to send passengers to Space Ship Center. Had he gone there? Perhaps Dwight would know, if he could be found—

DWIGHT RICHARDSON, lying at the foot of a fire escape tunnel near a side entrance, was aroused by the clattering voice of the telepage. He took an elevator up to the control room level. He strode into Ray's presence a sorry looking figure. His head was bleeding; his green uniform was smeared.

He read the question in Ray's eyes. "I'm sorry, Mr. Lattimer. I realize it is a breach of orders to leave the controls. This—" he pointed to his gashed scalp—"took me without warning. I saw him enter but I didn't realize—"

"Blougan?" Ray roared.

"Yes," said the pale operator. "He holds a personal enmity toward me, but I can't say what inspired him to cool me." A startled expression came into his face. "Seems to come to me now that I had a passenger on—"

"Get that head bandaged, Dwight, before you pass out again. I'll ring for an emergency operator."

Ray did so, then rushed back to his office. The facts were out of the fog now, and yet he could not make up his mind to accept them. Somehow they floored him. His mind was still grasping for a straw of escape. Dialing for Professor Buchanan's, he called for

* This process of "duplicating" is made possible through a strange paradox, which at first glance seems impossible, since the laws of matter and energy preclude the possibility of producing matter from nothing. However, this is not the case in the radio transmitter used by Radio Transit. Objects to be sent by radio are resolved into energy and transmitted as such, in a definite energy pattern, recreated into matter by the receiver. However, this entails a loss of energy by widespread broadcast, and a subsequent necessary addition of energy at the receiver, from generators for that purpose. Exactly enough energy is sapped from the storage cells by the energy pattern received by the receiver, and reconstruction is duplicated to the last molecule exactly as broadcast. Thus, with a duplication of receivers, acting on the same energy pattern, it is possible to create more than one object, exactly identical.—Ed.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Mrs. Lattimer. A moment of tense waiting filled with wishful thinking. If that first call from Vivian on her arrival at the party could only have been a hallucination—

A shadow cut across the televisor and Vivian reappeared, fresh and vivacious. "What is it, dear?" Echoes of the party accompanied her voice.

"Why—ah—nothing. Just wanted to make sure you were there all right. I guess I was a little absent minded when you called before."

"Of course I'm here. Where else would I be?" she laughed.

"Of course, dear."

"Aren't you coming soon?"

"Well, I—"

Vivian read trouble in her husband's manner. "Something's wrong, Ray. What is it?"

"Nothing. I—just forget I called. Goodbye." He snapped off, snatched up the number he had written a few minutes before, and dialed for Space Ship Center.

The televisor went on. There was the private booth again, occupied by Vivian. Ray was convinced: The bald fact was that there were two Vivians instead of one. A certain troublemaker had sent channelized radio waves in two directions and had switched on two receivers to catch them.

Two identical Mrs. Lattimers. Duplicate wives. Neither knew of the other's existence—yet!

"Did you find anything wrong, Ray?" the anxious girl in the televisor was asking.

"Plenty," said her perspiring husband with a gasp.

"We're going to be very late for the party, dear. Don't you think I'd better call and explain?"

"No, by all means, don't!" Ray was floundering. He knew she was grow-

pending trouble. "Just a minute—" He called the control room to be sure the emergency operator was on the job. "Listen, Vivian, Blougan's got something in the air and it looks bad. He may be there looking for you. Keep out of his way and come on back here by radio as quick as you can. I'll be waiting."

THE peril of the situation now descended like a tornado upon Ray's mind. That scoundrel had planned for this night. It was purely a break that Vivian had happened to hide away in a television booth before he intercepted her. What were his intentions? To make a break for another world? Ray's perspiring fingers dialed Space Ship Center again.

"Space Lines Information Desk, please . . . Hello. When is the next space ship scheduled to leave?"

"For what points, please?"

"Any points."

"The next departure is for Venus in fifty minutes."

"Can you inform me whether Barton F. Blougan has made any reservations? This is Ray Lattimer of Radio Transit inquiring."

The inventor's famous name was like magic. The confidential information was at once secured. "Mr. Blougan has reserved two compartments, Mr. Lattimer . . . No, we find that his party has not boarded yet."

"Thank you."

It was clear now that the trickster's intentions were sinister in the extreme. In less than an hour he expected to be off for Venus with a beautiful dark eyed Vivian, thinking that Ray, gayly dancing with another Vivian at the party, would never know what had happened. A sweet set-up.

Ray dialed recklessly. The private [illegible] Union Station did

LICENSED TO NZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

not answer. He tried again and again. Vivian was no longer there. He got in touch with the officials of the Venus-bound ship. They had not seen her. Very well. She must have gotten aboard radio transit to return momentarily. He would go to the passenger platform and wait. If she did not arrive shortly he would go to Space Ship Center after her.

He paced the platform impatiently.

He would have been far more impatient had he known that Bart Blougan had caught one Vivian Lattimer by the hand the moment she emerged from the television booth. Leading her to a secluded corner of the station lobby, he plunged into an exposition of his sensational scheme. It was so startling that her wits were at first paralyzed. If he was telling the truth, another Vivian existed. Two of her had been created, just as two cases of gems had once been created out of the sending of one. One Vivian for Ray, the other for himself. She would go merrily to Venus with him and never be missed. In less than an hour they would be off.

The horrified girl would have shrieked but for the gleam of desperation in Bart Blougan's eye. It was the height of absurdity that this silly, sullen, middle-aged male should concoct such a plan and think that she might fall for it. Her life and Ray's were woven together. She would fight to death before anyone could take her away from him.

But there was Blougan's dangerous manner. She was in a tight spot and she knew it. His plans had been carefully laid. He expected them to go through. Her only chance was to suppress her rising anger and rely on her wits. If she could just scheme to get back to her waiting husband—

RAY was tearing his hair. His shoul- [illegible] clenched, as he paced the platform. He looked at his watch. Still forty minutes. There was really no pressure of time yet; it was simply this idle waiting that burned him. The damned suspense. He had told Vivian he would wait here. Well, he couldn't hold out any longer. He would go and find her.

"Space Ship Center!" he blurted to the emergency operator as he stepped into a transit car. Then a familiar voice detained him.

"Ray! Wait for me!" Vivian was hurrying toward him. She had just arrived by radio. He looked at her searchingly, caught her up in his arms.

"Gosh, you had me worried," he gasped. "I was afraid—" The look of surprise that came into her face caused him to stop short. "Where'd you come from?"

"The party, of course. I couldn't stay another minute after I saw you were so worried. What has happened, Ray?"

His expression was puzzling as his gray eyes gazed at her. He glanced at his watch, returned it to his pocket slowly, regained his cool manner.

"We'll walk the balcony," he said. "I've got lots of questions for you, and I want you to think fast."

"Go ahead." Her eyes were alert.

"You remember Blougan's case of precious stones?"

"Of course."

"You realize that *anything* could be duplicated by radio transit the same way—simply by throwing a couple of switches?"

"Certainly."

"Even persons?"

Vivian looked up at him curiously and nodded.

"If *you* should be duplicated, Vivian, so that there were *two* of you, what would you do about it?"

[illegible] The question struck Vivian as hu-

LICENSED TO ULIZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

morous, and her eyes fluttered with mischief. "I'd insist that you be duplicated too, so that there would be a husband apiece for each of me."

Ray bit his tongue. "Let me carry the supposition farther. Suppose you found yourself in Space Ship Center and Bart Blougan accosted you—purely supposition on my part, you understand—and he convinced you that you had been duplicated. Furthermore, he had plans laid to cart you off to Venus on a space ship, assuring you that you would never be missed. Would you give his proposition a second thought?"

"Ray Lattimer, don't insult me," came the instant answer.

"All right. Now imagine he threatened you, told you to keep your mouth shut and come along *or else*. What would you do?"

"How much time do I have?"

"Less than an hour."

"What time of day?"

"Now. Everything just as it is this evening. Your duplicate has gone to a party at Buchanan's. I'm still here at work—"

A touch of fright came into the girl's face. "Ray! Are you trying to tell me—"

"Think fast. What would you say? What would your first impulse be?"

"In any tough spot my first impulse is always the same—to come to you the quickest way."

Ray glanced back toward the station platform. No one was in sight. "Go ahead. How would you manage it under the conditions I've given you?"

"Well," her face grew tense as she visualized the menacing situation, "my only chance would be to pretend to fall for the scheme. Tell him I'm all for it, and always had a secret yen for an escape to Venus. If I could get him coming my way I'd have a fighting chance to handle the situation."

"How?"

"Well, I'd say, 'Bart, why don't we make a good thing out of this while we're at it. I know where Ray keeps his designs of radio transit. He's gone to the party by now. Let's radio back to headquarters and get them. It will only take ten minutes or less, and those designs will certainly be valuable when we get to Venus."

"Would he fall for that?"

"A chance to be boss of radio transit on Venus? Ray, do you know how jealous he is of you?"

"You think you could get him to come back with you after those designs?"

"Yes," said Vivian confidently. "I might have trouble carrying on my plan from there, but here's the chance I'd gamble on. As we arrived here, I would lead him directly to that farthest corridor, the dark one, to the supply closet. You know I carry a key and that lock is solid, and if you didn't show up—"

VIVIAN stopped short, noticing that her husband's eyes were fixed intently upon something in the distance, beyond the balcony. At first she saw only Dwight Richardson, his uniformed back toward them. His head was bandaged. He was standing half bent, as if he too saw something in the distance that had aroused his curiosity. Then her eyes caught the two dim figures at the far end of the promenade slipping into the shadowy corridor.

"Quick, Vivian!" Ray's firm hand caught hers and to her utter amazement they went flying across to the rear hallway and down toward the darkened end. "It's crazy but it's worth a try," Ray hissed as they ran. Cautiously they rounded the corner.

"I don't get it," she gasped.

"You will, or I miss my guess." They reached their destination, the deeply

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

indented doorway of the supply closet. "After all," he whispered, "since you *are* identical, your minds are sure to work along the same lines."

"You mean—"

"S-s-s-sh!"

Only a few seconds of silence before the footsteps began to whisper in the distance. Then there were low voices —Blougan's and—yes, Vivian's! The girl at Ray's side trembled as she heard. It was chilling, uncanny—her own voice drawing closer and closer; her own answers fending off Blougan's menacing suspicions; her own trap ready to spring —and yet here she stood silently, motionless, concealed against the wall as if bound apart from herself, watching herself approach this crisis.

The voices were only a few feet away now. Blougan was muttering uneasily. He stopped short.

"This is the door," came Vivian's voice.

"Yeah?" Blougan quavered. "How do I know but what someone's hiding in that doorway?"

Ray waited no longer. He did not pounce, he simply stepped forth and said, "Feeling guilty, Blougan?"

The corridor lights flashed on at the same instant, in time to show Blougan's right hand plunging for a gun. Ray's muscular body leaped into action.

Three spectators now witnessed the swift combat. The newcomer was Dwight Richardson, whose suspicions had brought him into the corridor in time to flash on the lights. He divided his attention between the combatants and the two female spectators. He seemed to be seeing double. The flying fists were dizzying enough, but to see two figures of Mrs. Lattimer fluttering around, both of them cheering for the same man, crying the same words, occasionally clutching each other's hands in their excitement—this was too much for him. It was disquieting to his world of order and precision. For something to do, he bent down and picked up the gun which, after all, had just as well be in his pocket.

Shortly the violent Blougan was quiet on the floor, and his broad shouldered opponent was straightening up and brushing the hair out of his eyes.

THEN came a strange moment. Perfect silence, and yet the atmosphere was charged with emotion. Dwight Richardson looked on in bewilderment. For the life of him he couldn't tell which of these gorgeous females was Mrs. Lattimer and which was her twin sister; and to his utter astonishment he saw that President Lattimer himself was in the same dilemma. At least that masterful executive was looking from one to the other of them in the most questioning manner; Dwight had never seen him look helpless before, but he was plainly dumbfounded now. And most curious of all, it was as obvious as could be that both women were dying to throw their arms around their hero and kiss him, yet they both held back—as if they themselves didn't know which was his wife. It was too much for Dwight.

Once they looked at each other and broke into embarrassed smiles; then their faces grew serious and they seemed to be thinking deep thoughts. President Lattimer seemed the more ill at ease because of Dwight's presence; so the operator said, "I'm ready to go back on duty now, Mr. Lattimer."

His words seemed to relieve the situation. "Yes, do, please," Lattimer answered. Then with a glance at the prone figure on the floor, "When this snake wakes up, tell him I'm granting him free passage to Space Ship Center."

"Yes, Mr. Lattimer." Dwight turned

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

and started back to the control room.

"Oh, Dwight—"

The operator whirled about, his normal dignity badly shattered. Both these girls had spoken to him, almost in unison. Both had started toward him, as if they were about to say something of great importance. It was uncanny.

Blougan groaned and opened his eyes. As they turned to look at him, Lattimer caught the nearest one by the hand and said, with a toss of the head, "Go get the designs for radio transit."

Both girls saw the decisive look in their husband's face. What he had in mind, neither of them knew. But in the past tense moments their own bold wits had been working furiously. Brief as the scene had been that had held them face to face, both were convinced of the impossibility of even a temporary triangular group. In the conversation of silence they had read Ray's anguish; each time either had started to speak, similar words were on the lips of the other; their personalities being identical, one of them was superfluous. Had their characters been less ideal, they might have been at each other's throats for the right to go on sharing life with Ray. Instead, each was aware that a moment of sacrifice was at hand.

Now that Ray had given a direction to one of them and she had started to comply, the other seized the opportunity to follow out her own plan. She hurried to catch up with Dwight, who had turned the corner toward the control room.

"Dwight, there's something you've got to do for me—"

Ray heard no more. He and Blougan were the only occupants of the corridor now, and a moment later there was only Blougan.

Ray ran to his office, picked up a few effects, and hurried out again. He had lost no time. Vivian—the one who had gone for the designs—would be returning by this time, he believed; the other Vivian would be at the control room with Dwight; Blougan would still be in the farthest corridor sitting in a daze; and the emergency operator would have gone off duty.

AS Ray emerged from his office he saw at once that one of his calculations had gone astray. Blougan, whether in a daze or not, was in a radio transit car, spiralling toward the transmitter; now he was gone. Where? Ray would not know until he reached the control room and saw how the switches were set.

Then came a second surprise. The emergency operator, waiting for an elevator, spoke to him. "Mr. Lattimer, your wife said you had ordered me to go off duty. She said that Dwight would be in shortly, and in the meantime she would—"

Ray did not wait to hear how she had sidetracked Dwight. She was alone at the controls and that was enough to tell him she had made a dangerous decision. He bounded through the promenade in time to see one of the girls board a transit car and push off. The other, racing toward her, waving the package of designs frantically, was screaming to her to stop.

The terror of her voice told him what was about to happen. He flew into the control room. His eyes caught a row of switches—all open. Not a single receiver would catch the waves that were about to go forth. They would be lost in space. Already Blougan had unwittingly made his final exit.

Ray leaped across the room with an outstretched arm, caught a switch, jammed it closed. A glimpse into the swirling spiral told him that there had been not a second to spare. As the full scare of what had nearly happened came

(CONTINUED ON PAGE 117

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

By WILLIAM F. TEMPLE

Panic gripped Mr. Craddock as the hours repeated themselves. Then, learning the incredible truth, he sought a means to use them to his own advantage

CHAPTER I

The Uncanny Bus Ride

THE bus went swishing through the night, little fountains of rain water spurting from under its tires.

Mr. Craddock rubbed the sleeve of his overcoat against the misty window beside him and peered through the smeary patch of comparative transparency which he thus created.

It was very dark outside, and all he could see was the shining wet sidewalk sliding by, edged on the far side with the faintly gleaming spokes of iron railings, and beyond that the black blur of houses. It was not enough to tell him just what part of Cranston High Road he was passing, and he waited impatiently for the bus to reach a recognizable landmark to discover where he was.

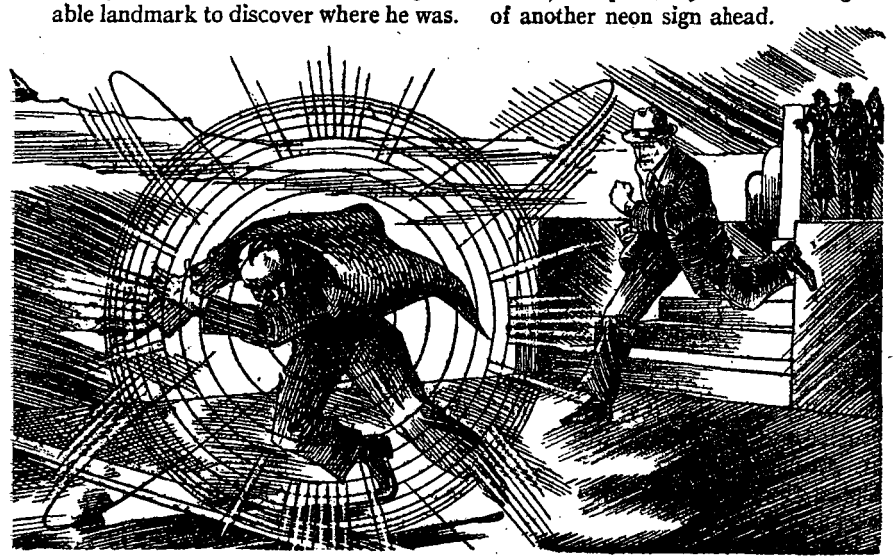
Presently a large red neon sign came floating along through the darkness, and Mr. Craddock scanned it.

A. P. BURSLEM & SON

Mr. Craddock reflected. "Let me see now, that's the shoe shop. My road is the next turning but two. I'll start to get off when I see Flaxman's, the baker's, sign."

Mr. Craddock was a very methodical man, or, as his late wife had often put it, he "always wanted everything just so." He always tried to stop the bus exactly at the corner of his road, so that he had a minimum of walking to do. He particularly wanted to accomplish this tonight, for the rain was simply teeming down.

He kept a keen lookout for Flaxman's, and presently saw the red glow of another neon sign ahead.



LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"There's Flaxman's," he thought.

As the bus drew level with the sign, he cast a perfunctory glance at it as he was rising from his seat, and next moment flopped back again, the most surprised man in Cranston.

For the sign read as plainly as could be:

A. P. BURSLEM & SON

As we have said, Mr. Craddock was a methodical man, and as soon as he had recovered from his initial surprise he set methodically to work to find a logical explanation.

He thought of three:

1. The bus-driver had mistaken his route and gone round in a circle.
2. The whiskey at the "Grayhound" was extraordinarily potent.
3. He (Mr. Craddock) had been mistaken.

The latter was perhaps the most probable, yet he could have sworn that the first shop sign had been Burslem's.

And then the true explanation struck him. Why, of course, Burslem's must have opened another branch! How stupid of him not to have thought of that! Then this next neon sign they were approaching must be Flaxman's.

But it wasn't.

The astounded Mr. Craddock read for the third time:—

A. P. BURSLEM & SON

It was a dazed and somewhat frightened little man who scrambled from his seat and dropped off the bus.

HE found he had alighted too soon, and had some distance to walk. As he trudged along, hat brim down and coat collar up against the pelting rain, his mind was whirling with thoughts of his peculiar experience, though he stopped when he came to Flaxman's, the baker's shop, to assure himself that it at least was in its rightful place.

His apartment was just around the next corner, and soon he was mounting the steps to the front door, reaching automatically for his key. He let himself in, closed the door behind him, and began climbing the stairs to his tiny flat on the top floor—the only rooms in the house that were tenanted at the time.

He was still deep in his thoughts and taking little heed of his surroundings, but presently he could not help noticing that the stairs felt unusually hard to his feet, as though the carpet had been removed.

"What the dev—" began Mr. Craddock glancing down, and then stood transfixed, his heart thumping wildly.

For the stairs were of *stone*, and streaming wet. He was once again mounting the steps to the front door!

Picture him standing there, a rotund little figure in an overcoat that fitted none too well, a felt hat rendered shapeless by the rain, and a cheap scarf of frightful hue. His very ordinary features were dominated at the moment by bulging blue eyes which mirrored his mixed feelings of bewilderment and fright. He was trembling rather badly, too. This sudden reverting of things, this recurring experience of being shunted helplessly back by some unknown Power, had come into his quiet, well-ordered life with something of the shock of a bombshell.

Mr. Craddock loved peace and security. He liked to know where he stood. His day was always methodically arranged. He rose at 7:30, caught the 8:22 train to his office, went to lunch at noon, caught the 5:20 home, went to bed on the stroke of 10:30. He'd done that for years with hardly a variation.

And now—this.

One moment he was climbing the stairs exactly as he had done a thousand times before, and the next he was back in the street without knowing in the least how he got there. To put it mildly,

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

it was darned uncanny.

A sudden gust of wind drove a hundred stinging raindrops into his face, and he shivered and reached again for his key—and discovered that somehow it was already back in his hand.

But still he hesitated. No, he couldn't face those stairs again. He would go round and up the back staircase. And so by this devious route he reached his bedroom and slammed the door behind him.

CHAPTER II

Safe at Home

PRESENTLY, after he had removed his wet things, gulped a peg of brandy, and poked a nearly dead fire into a glow, he felt somewhat easier and sat down in his armchair with a pipe. He reclined there puffing jerkily, staring up at the clock on the mantel and reflecting on the strange events of the evening.

"It certainly had me scared," he mused. "I'm not sure now that it wasn't that whiskey after all. Think the best thing to do is to go to bed and try to forget it. I'll feel better in the morning."

It had just gone half after ten, his usual bed-time, and so he arose, knocked out his pipe against the fireplace, and began undressing.

All the time he was doing this he tried to think of other things, of ordinary commonplace things; of that money he had to come from the bookmaker; the film he had seen at the Star Cinema yesterday; the new tobacco he was trying. . . .

But it was no use. At the back of his mind, yet persistent and dominating, was the question: "What in heaven's name happened to me tonight?"

Long after he was in bed the query reiterated itself maddeningly, until at last, unable to bear it any longer, he sat up and shouted into the darkness as if at some watching entity.

"I don't care who or what it was—I'm not afraid! And I'm not going to worry myself any longer. I'm going to sleep."

Defiantly he flung himself back, pulled the bed-clothes up to his chin, and strove to make his mind a complete blank, a method of getting to sleep he often used.

In a measure he succeeded. He sank into a doze, half aware that he was still in bed, yet at the same time wandering through a queerly distorted version of recent events.

Here he was leaving the bar of the "Grayhound" and waving good-night to Charlie—or was it Bill? But no matter, for the "Grayhound" went sliding rapidly away to one side, shrinking as it went until it became a mere doll's house far behind.

And he was riding along Cranston High Road in the bus. There in front was the red glow of Burslem's sign; but as he approached he saw that it was really the glow of a fire, and leaned forward to stir it up with the poker in his hand. At that moment, however, the fire exploded, disintegrating in a shower of flying embers.

Mr. Craddock felt himself being lifted by the force of the explosion. For a space he whirled dizzily in nothingness; then came a sickening sensation of falling. He landed with a frightful jar in a sitting position, a great white light blinding and dazzling his eyes.

He blinked at the glare, gave a terrific involuntary yawn, and then came back with a rush to full consciousness.

The dazzling white light was the room lamp, which was full on. He was not holding a poker, but his pipe. He was sitting again in his chair before the fire. And the clock on the mantel

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

showed exactly half after ten. . . .

Comprehension came like a douche of cold water, and left him shuddering, with an unpleasant void where his stomach should have been.

"Oh, God, what has come over me?" he whimpered. "What has come over me?"

He sat huddled in the chair till dawn, afraid to move.

CHAPTER III

Dr. Chalmers' Theory

TEN o'clock the next morning found him in the consulting room of Dr. Chalmers, the young doctor at the corner of Bromley Grove.

Although only an ordinary G.P., Dr. Chalmers had a local reputation of being something of a brain specialist, and so Mr. Craddock had chosen him in preference to stolid, unimaginative old Dr. Evans, his own doctor, whom he knew would dismiss him with a gruff admonition not to mix his drinks.

Dr. Chalmers also specialized in the study of the higher mathematics, and the theories of Albert Einstein held no mysteries for him, though he did not always agree with that profound mathematician. Indeed, he had formulated several original theories of his own.

He listened to Mr. Craddock's story with interest, nodding his head thoughtfully from time to time, and occasionally asking for some detail to be repeated. At the end he sat for a while in contemplation. Then at length he spoke:

"Your case is not one of mental disorder—you are obviously quite fit and sane. No, it's really a problem in hyper-spacial geometry."

Mr. Craddock looked blank, but the doctor continued unmercifully:

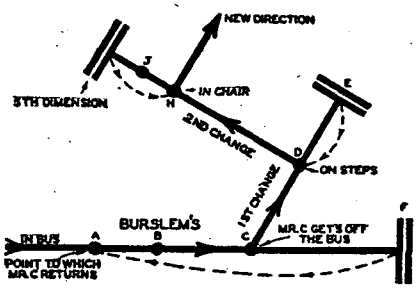
"What has happened to you is that you have bumped into the Fifth Dimension, and the impact has sent you flying backwards across the Fourth Dimension."

"Pardon me," said Mr. Craddock hesitatingly, "but I never could understand geometry."

"Let me try to explain it simply. The Fourth Dimension is, in many scientists' opinion, Time. Imagine Time to be only two-dimensional, a flat surface —say the surface of a billiard table. You, then, are a billiard ball rolling quietly along in a straight line—your Life-line—across Time. Then suddenly you bump squarely into the cushion (the Fifth Dimension) and the impact bounces you back along the line you have been traveling, so that you find yourself back at some point on your Life-line that you have already passed once. Do I make myself clear?"

"I'm still a little hazy," confessed Mr. Craddock, who was very hazy indeed.

"I could explain it better, perhaps, with a diagram," said Dr. Chalmers,



seizing pencil and paper. "This is your Life-line" (drawing a thin straight line) "at the time you were going along the Cranston High Road. At point B you pass Burslem's. At point F you strike the Fifth Dimension (which I will show as a thick double line at right-angles to your Life-line) and are shot back very quickly, almost instantaneously, to point A, which you notice is *before* you

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

get to Burslem's.

"As you remain in the bus, you are doing exactly what you did before, and so traverse the same Life-line as before. Twice more you pass Burslem's and are flung back by the Fifth Dimension, until you change the course of your life by getting off the bus at point C. Proceeding along this fresh Life-line you reach the door-steps at point D, but unfortunately come up against the Dimension at point E and are flung back to D.

"This time, however, you change the course of your life straight away by going round the back stairs, and so branch out in this direction. Still, you haven't changed it sufficiently. At point H you are sitting in the chair; at point J you are in bed, and after you have crossed a narrow strip of Time you meet the Fifth Dimension again, and wake up to find yourself back at point H, in the chair. You change direction again by remaining in the chair instead of going back to bed, and so far along this new Life-line you haven't met with obstruction. Are you any clearer now?"

"Well, I've got the general idea, I think," said Mr. Craddock dubiously. "But why do I have to move along this Life-line, anyway? Can't I stop still?"

"You will when you die," rejoined the doctor grimly. "The propelling force driving you along your Life-line is your *mind*. It is like the engine of a car: the faster it works, the faster you go, and *vice versa*. After all, Time is purely relative, you know—it is only what you *think* it is. For instance, if you are waiting for the doctor to come to the succor of a friend who might die at any moment, the time waited may measure only an hour by the clock, but to you it seems like several hours. Again, you might go to sleep, and sleep soundly for seven or eight hours, but only a few minutes ago you got into bed."

"I suppose in the first case—" began Mr. Craddock, but the doctor took him up.

"In the first case your mind was working quickly with anxiety, almost feverishly, and so actually carried you across those apparently illusory hours of Time. In the second case your mind was at rest, and you remained practically stationary in Time. And whilst on the subject of your mind, one part of it—the memory—receives a definite impression from the Life-line as it passes along it, so that after one of your peculiar return trips your memory still retains the impression of the Life-line which in fact lies ahead."

"I see that," said Mr. Craddock after a pause. "But then there's this Fifth Dimension. What does it look like? Why can't I see it?"

"Because it's something absolutely outside of human perception. We can't even begin to imagine what it looks like, no more than 'Flatlanders'—hypothetical people living in a flat plane of only two dimensions, Length and Breadth—could imagine what the Third Dimension, Thickness, looks like. It's beyond our three-dimensional senses—four-dimensional, if you include Time—to comprehend it."

"It's all very well," muttered Mr. Craddock, tugging nervously at his moustache, "but, assuming that this sort of thing keeps on happening, how is it going to affect my life?"

Dr. Chalmers reflected.

"Well, it more or less gives you a second chance each time," he said. "And it will in a way lengthen your life, for instead of proceeding in one direct line across Time, you will take a tortuous, and therefore longer, course. You must let me know how you get on. [illegible]"

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

CHAPTER IV

The Street Called Straight

MR. CRADDOCK found it both interesting and trying during the next few weeks.

There was that time, for instance, when he stood in a line for an hour to get into the cheap seats of the Star Cinema, and just when he reached the box office he suddenly found himself back at the end of the line again. Gloomily he had resigned himself to wait the hour over again when it occurred to him that he was doing just what he had done before, and was therefore traveling over the same Life-line.

"Got to change direction," he muttered to himself, and went to another cinema instead.

There were occasional compensations however.

Feeling unusually hungry one evening, he went to the best restaurant in Cranston and had a real feed. He was something of an epicure, and enjoyed to the full every one of the seven courses. And when the waitress handed him his check it gave a little quiver like something in *Alice in Wonderland* and changed into the menu she had handed him before he ordered the dinner.

Of course his hunger had returned too, but then he had the pleasure of eating two dinners. The second was entirely different from the first. (Mr. Craddock was getting experienced in the art of changing direction.)

There were several little affairs of this nature, until one day Mr. Craddock had a great idea.

Could not this affliction of his be turned to some account? Surely it had money-making possibilities?

He sat down to think the thing out. But he was a man of limited horizons, which he knew nothing) he could think only of his main interest, horse racing.

So off he went to the race course one day with most of his savings in his pocket and high hope in his heart. He did not bet on the one o'clock race, but carefully noted the winner. In the same way he made mental notes of the second, third, and fourth race results.

By the time the fifth race started he was beginning to feel a little anxious. Would he never strike that Fifth Dimension again?

"Just when I want it, it won't come," he muttered savagely. "And here I am with all today's winners in my pocket. Such lovely odds, too. Oh, to be back at one o'clock!"

The fifth race finished—"Gooseberry Bush" at 100 to 8.

Mr. Craddock groaned.

"Matches, sir?" queried a hoarse voice in his ear.

"No!" snapped Mr. Craddock.

The old match-seller, in retreating, stumbled over his own feet and sent the contents of his tray flying.

"Clumsy devil!" thought Mr. Craddock peevishly, watching the old man groveling for his scattered stock, and then turned his attention to the 3:30, the last race of the day.

A quarter of an hour later "Diplodocus" romped home at 33 to 1.

"Oh, well," thought Mr. Craddock, turning away, "there's another day's racing tomorrow. . . ."

"Matches, sir?"

"No!" said Mr. Craddock almost fiercely.

The same old match-seller went shuffling away, stumbled, and sent his boxes cascading to the ground.

The coincidence gave Mr. Craddock sudden pause. Strange, that happening twice! Strange, too, that one particular match-box over there should fall [illegible] corner just

ELECTRONIC REPRODUCTION PROHIBITED

as it did before. . . .

Abruptly he jerked out his watch.

3:20.

Good God! He had hit the Dimension after all!

He had not been shunted back so far as he would have wished. But there was still time to clean up on that last race—"Diplodocus" at 33 to 1.. He had ten minutes to lay his bet. Feverishly he dashed for the mutuels.

"Two hundred and eighty dollars to win on Diplodocus," he said, passing the bills over with a slightly trembling hand.

The man in charge jovially approved his selection, and gave Mr. Craddock a voucher. That worthy crammed it in his pocket, and paced fretfully up and down until the race began.

All happened exactly as before: Diplodocus won by three lengths at 33 to 1.

Mr. Craddock gave a sigh that denoted joy and relief. Then he hurried back and handed over his voucher.

His head was spinning with figures. How much was two hundred and eighty multiplied by thirty-three? Three eights were twenty-four, and three twos were six, plus two—

"Two hundred and eighty bucks," came the bookmaker's voice cutting across his thoughts. "Diplodocus to win, you said? A darn good pick, pal. Stands a fine chance."

Mr. Craddock's brain was numbed for a moment; then it began working fast.

Those bills were merely his two hundred and eighty dollars! Back again to the point when he was putting the money on! Oh, to hell with that Dimension! It was no use making his bet over again—not at this window at any rate. The Fifth Dimension barred his way.

"I've decided not to bet," he said gruffly, and snatched the money from the astounded man's hands.

As he dodged through the crowd he spied a bookmaker, one Sid Street, a tubby little man very like Mr. Craddock himself. This way might work better.

And presently he was back at the rails with Mr. Street's voucher in his pocket.

For the third time that afternoon he saw Diplodocus canter aloofly past the post exactly three lengths ahead of his nearest pursuer.

"And I hope it's the last time, too," he thought to himself as he made his way back to collect his winnings.

He tried to push his way through the crowd, but everyone else was apparently trying to do the same. As he surged helplessly to and fro, his ears caught sundry words and phrases voiced by the people around him.

"The fat little welsher!"

". . . called straight—the liar!"

"If I lay my hands on that guy, I'll . . ."

It did not take a Sherlock Holmes to deduce what had happened. Mr. Street had packed up and gone—presumably up the "street called straight."

CHAPTER V

Into Danger

MR. CRADDOCK, still trying to swallow his own bitter pill, thought it best to be going. The crowd was getting too rough. Besides, he wanted peace to think over this new misadventure. Almost all his savings gone! He could scarcely credit it, even now.

He became aware that several people near him were staring at him peculiarly. He wondered why.

"That looks like the guy," said a pugnacious-looking man suspiciously.

Mr. Craddock went suddenly cold. He remembered that the bookmaker

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

very much resembled himself in appearance. Under the stare of a score of mistrustful eyes he walked away.

He was almost at the station before he realized he was being trailed. Four rough-looking men were following him at a never varying distance behind. They trooped into the depot after him and stood apart, eyeing him covertly.

For a moment Mr. Craddock forgot even his lost cash in this fresh threatening crisis. Anxiously, but with a fine outward appearance of unconcern, he began to stroll up and down, humming untunefully, contriving to edge farther away from the group without appearing to notice them.

Just as he thought he'd put a fair distance between himself and them, a hand caught his shoulder and swung him round.

The four men had walked quietly up behind him, and were standing there watching him grimly. The toughest member of the bunch kept his grip on Mr. Craddock's shoulder.

"Name of Street, ain't it?" he growled.

"N-no," stammered Mr. Craddock. "N-not me. My name's Craddock I'm—"

"Can it!" snapped the man. "You wouldn't be so all-fired nervous if you wasn't our man. So you'd scram with our winnings, would you?"

A train came rumbling into the station, drowning Mr. Craddock's panic-stricken reply. The man growled again, and drew back a hamlike fist preparatory to smashing it into Mr. Craddock's face.

Mr. Craddock gave a yell, wrenched himself free with a sudden twist, turned and ran as fast as his short legs would carry him.

"Stop him, boys!" came a shout from behind him.

The train was almost half-way into the station, and Mr. Craddock, with a wild idea of putting it between himself and his pursuers, tried to dash across the line. But his too hasty feet slipped on the rails. He fell awkwardly and heavily, twisting so that he landed with a jolt on his back across the way, in the very path of the oncoming train.

The moment he landed, life seemed to slacken speed enormously, to become the slowest of slow-motion films.

The train, which had entered the depot at a furious rate, was now standing almost still, a motionless cloud of white smoke perched like a bit of cottonwool on its funnel. To the side, Mr. Craddock glimpsed his four pursuers, an irregular group frozen in the act of running, each poised ridiculously on one foot.

The explanation of this flashed upon him. When death is imminent, one's whole life is supposed to pass rapidly before one's eyes. This did not happen to Mr. Craddock, but his brain became extraordinarily lucid and clear, and was racing at such a speed that by comparison the normal procedure of life seemed unreal. What was it Dr. Chalmers had said about the brain working quickly?

". . . your mind—is like the engine of a car; the faster it works, the faster you go . . ."

Then he must be tearing along his Life-line at a terrific speed. If he hit the Fifth Dimension now!

The locomotive had approached perceptibly. He could distinctly see the gleaming rim of the nearest wheel. He lay there watching its deathly slow approach, while yet his brain was sending a message through his nerves to his muscles telling them to get him out of this. But he knew he couldn't arise in time.

Nearer and nearer.

The whole front of the engine was looming over him. . . .

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Then the whole scene was ripped asunder by a violent ribbon of light. It was as though a terrible thunderstorm had broken out without warning. Through vivid and incessant blue flashes he glimpsed the train, the depot, the figures of the four men becoming small and receding into the depths of a great black thundercloud. The cloud expanded rapidly, came whirling about him, engulfed him in sudden silence and utter darkness.

There was an indefinable sensation of flying bodilessly, which changed into a steady upward movement, a feeling of being borne up on something. He became aware of a faint and growing murmur of voices, an increasing glimmer of daylight, as if he were approaching the top of a long, dark elevator-shaft.

There was a strap around his waist binding him down to—what?

An operating table?

But no, that could not be. He was in the open air, staring up into a blue sunny sky.

He strove impotently to get erect. All his strength seemed to be drained out of him. He felt unnaturally feeble. . . .

EXTRACT from the *Morning Chronicle*, June 4th, 1891:

"Cranston, Monday.

"John Craddock, a nine-months' old infant prodigy, astonished a distinguished gathering of medical men here tonight.

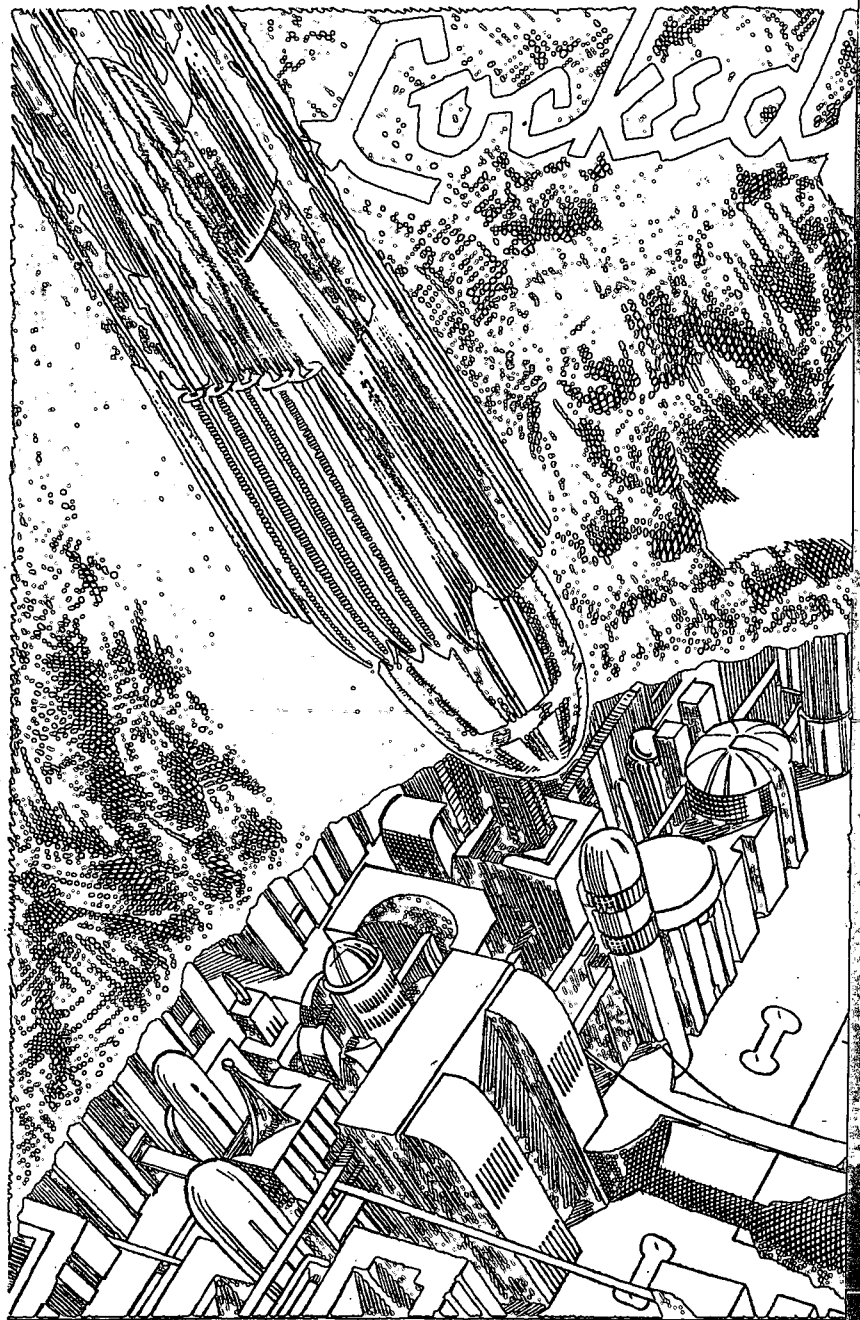
"This remarkable child is able to converse intelligently with any adult on everyday subjects, and although he has never been taught to read or write, he can do both perfectly.

"His father, Mr. James Craddock, is at loss to account for the phenomenon. Interviewed by our Special Correspondent, Mr. Craddock said: 'Our baby was perfectly normal until about two months ago. One day he was being wheeled in his perambulator by his nurse when he suddenly started to kick and jerk, as if in a fit. Alarmed, the nurse bent down to attempt to quieten him, when the child (which had never spoken intelligibly before) astounded her by exclaiming: "What the devil's happened now!"

" 'Since then John has displayed an intellect far beyond his years, and has made some remarkable prophecies, many of which have come true. I am also able to announce that he has been engaged by the Apex Music Hall Circuit to appear at their theaters this coming spring at a very large salary.' "

MR. CRADDOCK (*our* Mr. Craddock) had embarked very successfully on his new Life-line.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED



LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

City

By THORNTON AYRE

Exiled from Earth, and facing certain death, they found the Metropolis of Mars deserted, except for 7 strange characters

CHAPTER I

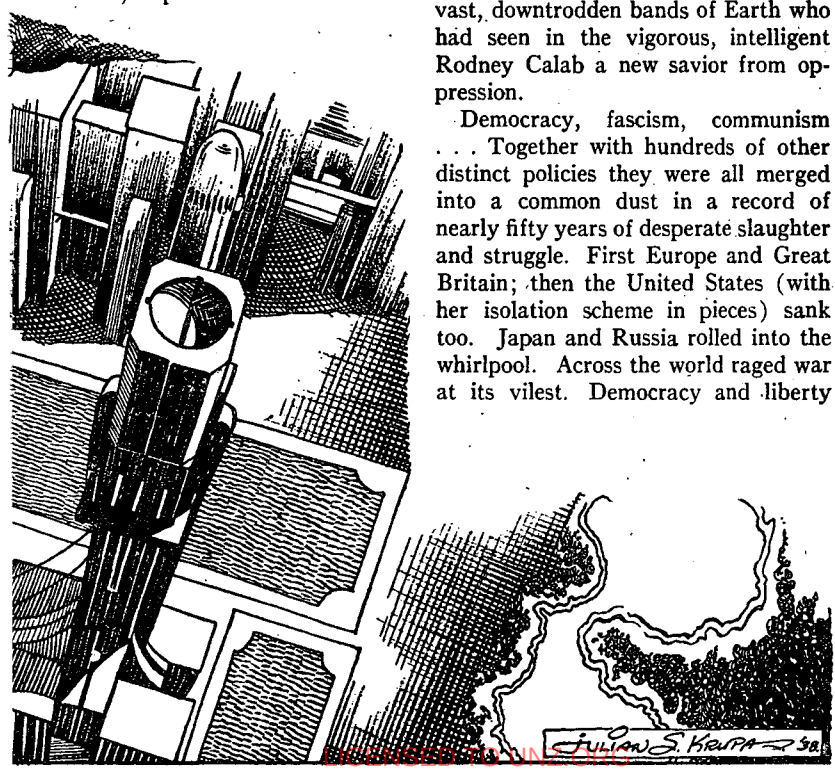
Sentence of Death

"RODNEY CALAB, Eva Calab, and Boris Rengard—you stand accused and convicted before his court as traitors to the cause of world progress—as defeated leaders in an effort to overthrow world government . . ."

The cold, impartial voice of Baxter Holroyd became silent for a moment. Every eye in the packed Hall of Judicature turned to where he sat—a grossly fat, vulgar, bald headed man, half leaning on his high and solitary desk, his pale eyes fixed in gloating triumph on the three in the dock before him.

This was no normal trial, no matter of espionage, but the final act of ruthless injustice that spelled doom for the vast, downtrodden bands of Earth who had seen in the vigorous, intelligent Rodney Calab a new savior from oppression.

Democracy, fascism, communism . . . Together with hundreds of other distinct policies they were all merged into a common dust in a record of nearly fifty years of desperate slaughter and struggle. First Europe and Great Britain; then the United States (with her isolation scheme in pieces) sank too. Japan and Russia rolled into the whirlpool. Across the world raged war at its vilest. Democracy and liberty



LICENSED TO UNLESS
ELECTRONIC REPRODUCTION PROHIBITED

were swept out of all knowledge. Iron dictatorship had won.

For ten years now, Baxter Holroyd, better known as the Iron Dictator, controlled the Earth's peoples with a severity and cruelty that had no parallel with the past. Science went on, cities were rebuilt, civilization picked itself up again—but all for the good of Holroyd. Anybody daring to raise a finger against him or his retinue knew the answer was always instant death.

Rod Calab and his wife, Eva, defied that possibility. Together, with the young chemist Boris Rengard to help them, they struggled desperately and in secret to devise ways and means of scientifically undermining Holroyd's power; were within an ace of success. Then came exposure, trial, and now—

"There are various means this court could adopt to dispose of you," Holroyd resumed smoothly. "You could be shot, you could be burned slowly with heat rays, you could be exiled to the new Polar continents . . . All those things we could do, but we shall not.

"Today, in this proud year of 1990 it is science that definitely holds sway, that bows down before the rule I have instituted for the common good of the people. To the end of furthering that science you shall be given a chance to live . . ."

The three remained silent—Calab, tall, lean limbed, dark haired, with a resolute jaw; his wife upright and defiant, blonde headed and blue eyed. Both of them moved only slightly. Boris Rengard did not even do that. Small and lofty browed, unruly hair as red as a sunset and eyes so dark they seemed to have no pupils, he stood gripping the rail in front of him, knuckles white through the taut skin of lean hands. Whether facing death or life science was his only stimulus. He waited expectantly, almost coolly, staring up into the grinning, flabby face looming above.

"Yes, a chance for life," Holroyd repeated softly, but it was a softness that had the bitterness of nitric acid. "You may be aware—you in particular, Rengard—that our science now is faced by two major problems, atomic force and the feasibility of space travel. I say 'feasibility' because space travel by rocket ship is an accomplished fact.

"The work of Calva Neil, your close ally in your attempt to overthrow me and whose life I now spare only because of his genius, has unlocked the void for us. But where are there lives we can sacrifice in the first experimental trip across such a vast gulf as, say, forty million miles? Criminals are too useful; ordinary citizens too valuable.

"That the journey can be made, we know full well, but the strain on a human frame has yet to be ascertained. No man has ever yet been into space. . . . You three will make the initial journey!"

A heavy silence dropped on the hall as the Dictator mused for a moment, rustled his papers.

"The chosen objective," he resumed, "is Mars. Principally because it is obviously a dead world; also because its conjunction is favorable at the moment; and again because a forty million mile journey will tell us all we need to know if a longer trip is ever attempted.

"You three will be rendered unconscious for a period of two weeks. During that time the rocket ship carrying you will cross the gulf, controlled as on previous occasions by the Neil Remote System. I need hardly add that, in view of his recent collusion with you, Neil will be heavily guarded during the process.

"It is certain you will land on Mars without mishap. If you have such

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

cumbed to the strain you will obviously be dead. If you have survived you will awaken. When you do that, certain concealed micro-waves networked across the interior of your cabin will react on photoelectric cells as your bodies intercept their paths. The cells will in turn actuate along a remote controlled beam and produce a response back here on Earth.

"We shall know by that means that you are alive—that space travel can be accomplished by human beings. Because you do not know the position of these beams, because you will be too dazed on recovery to even bother thinking about them, you will be quite unable to prevent the signals going forth. Is that clear?"

"And if we do live?" asked Rengard stonily.

The Dictator smiled icily. "Then, my friends, Mars is all yours!" he grinned. "A mostly waterless, airless planet to do with as you will. It is one world we shall never trouble to colonize, but if you can reach it, it makes us secure when we decide to take over Venus and other possible worlds. Then outwards—to the Galaxies!" Holroyd paused, oozing for a moment that spell binding power that had made him the ruler of a harassed, post-war world.

"Your ship will have enough fuel to reach Mars—no more," he resumed. "You will have no provisions, and no water. If you do awake, you will soon die . . . horribly, as you deserve—"

In the jammed hall outside came a commotion.

"I won't do it! Damn you, Holroyd, I won't!"

The Dictator and three in the dock turned. In an instant they recognized the blond head and ruddy-cheeked face of Neil, their defeated friend, perhaps one of the cleverest young electrical geniuses of the age. He shook his fist savagely across the astonished mob of people.

"I'll not guide any ship containing my friends!" he roared. "They are my friends, always will be, and no radio control of mine is going to send them to such a death as that!"

"No?" Holroyd's thick lips were sneering. "We will see to that later, my friend. Guards, take him away! Hold him under strict observation until further orders. Take these three prisoners away too. Sentence is passed!"

He leaned back and watched complacently the prompt execution of his commands.

Just after sundown he was watching again, from his apartment window in the Executive Building, the departure of a rocket ship climbing in a streak of sparks to the cloudy sky. Languidly he turned to the televisor and switched it on. It gave him a picture of the remote control radio room in another quarter of the vast Executive Building.

Young Calva Neil was hunched over the controls of his amazing apparatus. Every moment was clearly one of extreme helpless bitterness. Time and again he looked up at the iron-faced guards around him with their leveled ray guns . . . then with a hopeless shrug of his shoulders turned back to his task.

Baxter Holroyd switched off, and smiled—the smile of a being who has more of the snake in him than the man.

CHAPTER II

The Deserted City

ROD CALAB moved dully, heavy headed, aching. His body throbbed as though it had been subjected to an interminable succession of hammer blows. Wearily he opened his eyes, found himself gazing at a roof of curved metal illumined by weak re-

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

flected sunshine.

Little by little remembrance seeped back—the anesthesia on Earth in the prison cell, the memory of a last helpless struggle. The journey to Mars? Forgetful of his pains he eased off the soft spring bed against the wall—eased rather too rapidly indeed for the lesser gravitation instantly made itself evident and sent him sprawling.

After a minute's careful effort he found just how much energy he needed. Gently he picked his way to Eva and Rengard as they lay motionless on their beds, eyes closed, faces white and rigid. Anxiously he felt their pulses. They were still alive, sluggishly so in the grip of unconsciousness. There was nothing could be done for them but wait for the awakening.

His head clearing a little Rod stumbled to the window, clutched the frame and stared outside. It was a view that brought hopelessness into his gray eyes. The vessel had landed in the midst of a near-horizoned desert. It stretched away, uneven and bumpy, totally empty of life. Overhead the sky was blue black, powdered with brightly gleaming stars, the green spot of Earth itself visible low down in the west—or what Rod judged to be the west.

"Grand place to have a thirst!" he whispered, licking his dry lips. The stimulus shot into him at the time of the anesthetic had kept his body nourished during the two weeks, but now he felt the ravaging pangs of thirst and hunger. Wearily he rubbed his aching head. Then he turned about and looked at the fuel gauge.

There was still some explosive in the chambers — about enough to cover 2,000 miles. No more. Return to Earth was an absolute impossibility. With fingers that ached he operated the external air devices, made a wry face at the readings. The atmosphere outside was unbreathable in its thinness, approximating that of Earth's stratosphere.

"Damned lousy place!" he growled bitterly, and licked his lips again.

"I agree with you, Rod."

He turned in swift surprise and found Rengard sitting up on his bed, his red head in his hands. Savagely he ruffled his flaming locks, then looked up with a faint grin.

"Well, we made it," he commented. "Guess Holroyd's aware of it by now, too. Our alarm signal will have reacted, I suppose. Not that it does us much good, of course," he finished moodily.

He tested his weight against the gravity, moved to Rod's side and sourly studied the instruments. Then, shrugging, he flung wide the doors of the storage cabinet and gazed at the empty shelves with bitter eyes.

"Nice going!" he sighed. "Holroyd certainly kept his word. If we're to get out of this hole we've plenty of fast thinking to do."

"There isn't a way out," Rod growled. "Holroyd knew that when he sent us here. We're just prize guinea pigs, that's all."

He turned aside at a low cry from Eva. Gently he supported her as she began to recover consciousness. In ten minutes she was fully awake, in possession of the cheerless facts.

"Wonderful!" she shrugged; then with a whimsical smile, "What a pity space didn't make an end of us. Not much sense in being wakened up to die, is there?" She turned and looked at Rengard. He was standing by the window now, hands deep in pockets. "Any ideas, Ren?" she asked. "You're usually the one to get 'em."

"Maybe I have," he mused. "Come here a moment. . . ."

When they had come to his side he pointed across the desert towards the

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

horizon. "Notice anything out there, against the sunlight?" he asked quietly.

"You mean that tremoring effect against the light?" Rod questioned, staring steadily. "Looks to me as though it's coming out of the ground—"

"Yeah; and if it is it means warmth," Rengard pointed out. "It would rise rapidly in this thin air. Warmth from inside the planet might mean anything. Might as well go and see what it is. We've fuel enough for two thousand miles, so let's go. . . ."

He turned actively to the switchboard, remembered the gravity and shuffled forward slowly. In a moment or two he had disconnected the automatic radio devices and flung in the main power switches. Instantly the tubes fired, drove the ship upward in a cloud of dust and sandgrains. Against the lesser gravity it moved with consummate ease.

Rod and the girl remained at the window, holding onto its frame. The terrific speed of the vessel and the slight attraction played the oddest tricks on their sense of balance.

"Why, it's—it's a dead canal junction!" Eva cried suddenly, pointing below to the skimming desert. "Or is it?" she frowned. "Looks like a pit of some sort. . . ."

Rengard stared into his own observation window, took in a view of five dead channels, which had obviously been canal systems at some remote period, all running into a common convergence in a vastly deep, sunken circle. It took him a few minutes to realize that he was actually gazing at a shaft—that the darkness of the hole was not caused by the black shadows of the desert, rendered intensely dark by lack of diffusing air, but by tremendous depth going down heaven knew how far.

"Warm air out of that, huh?" he murmured. "That's interesting! You two ready to take a chance?" He glanced across the room.

"If you mean to go down the mine—yes," Eva said, seeing Rod's look of agreement. "Guess we can't be any the worse off, and we might find a lemonade or hot dog stand somewhere below. Go to it!"

"Oke!"

Rengard slammed in more switches, flew round in a sweeping semicircle, then tilted into a dive that sent the vessel whizzing downward with breath taking speed. For an instant Rod and Eva cramped their eyes shut; it seemed a certainty they were going to crash into the shaft's side; the gravity was so light it was hard to control the machine propperly. . . .

But Rengard knew what he was about. With a dexterous swing and a roar of exhaust he plunged into the abysmal dark of the place, slowed the speed, found the shaft wide enough to carry the ship broadside and so teetered down little by little with his ground blasts belching below to prevent a sudden fall.

With anxious eyes he watched the throwback meter—an instrument designed to show exactly how far away the ground was. He stared unbelievingly.

"Thirty miles!" he gasped. "A shaft thirty miles deep! It isn't possible. . . !"

But he was wrong there. The shaft was all the instrument claimed it to be. The ship descended in jerks for nearly an hour before it finally burst out of the eye-crushing blackness into a titanic, brilliantly lighted expanse that jolted the retinae with its sudden effulgence.

The three stared out on the amazing emptiness. Apparently it was chiseled smoothly by unguessable forces out of sheer virgin rock. A cavern, of stupefying size, illuminated at opposite ends

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

by two blindingly brilliant balls, their heat becoming evident on the meter registers, but not through the proofed windows and walls.

"Energy, I'd say," Rengard murmured, fingering his controls. "Energy cores of some kind, slowly eating their way through the rocks perhaps. Probably the original forces that started this cavern going. Maybe natural, maybe man made, I don't know—"

"Civilization!" yelled Eva suddenly, interrupting him. "Look down there!" She pointed excitedly below.

Rengard and Rod stared with her, down upon the amazing sight of a solid, invincible looking metropolis, its topmost heights reaching nearly to the cavern roof. In all it covered several square miles.

The buildings were of bluish metal, almost like chromium in their odd tint, perfectly architectured and studded with gleaming windows. The streets were orderly and spacious, the squares broad and imposing. There were pedestrian ways, traffic ways, monorails, subway entrances, every conceivable adjunct of a highly advanced city, and yet—

Not a thing moved! The place was utterly empty and deserted!

"Odd," Rengard muttered, staring over the silence. "Damned odd! Looks as though everybody's gone for a holiday. . . ."

He looked beyond the immediate city and found it was almost surrounded by a small jungle, in the midst of which were splashes of yellow which revealed themselves into fruit trees as the vessel dropped lower. Fruit like melons. In between the trees was the gleam of water in the twin sunlight.

"Water!" Eva gasped thankfully. "Thank heaven for that!"

"If it's drinkable," Rengard said pessimistically, and hardly dared glance at the instruments. Then he said brightly, "We're in luck. Air pressure down here is about the same as Earth's. Only explanation is that the Martians, if any, trapped it down here when things got too thin on the surface. Surface air now represents the equivalent of our stratosphere. . . ."

He brought the ship down in a little clearing, facing a miniature lake lined with the heavy trees. It was shadier here, hidden from the glare of the suns.

Rod turned to the airlock, unfastened the heavy screws and flung the cover wide. The air that entered was hot and moist, but otherwise little different from Earth's.

Almost instantly Rengard vaulted like a kangaroo through the opening and headed in flying leaps towards the pool, flung himself down on the mossy ground and plunged his face into the shining coolness. He drank noisily. For a scientist he was amazingly lax in making no preliminary tests; but then thirst had overcome all prudence. He straightened up at last and wiped his trickling chin.

"Swell!" he observed, sighing contentedly, as Rod and Eva looked down questionably upon him. "Try it!"

They lay on their faces to follow his example, but before their lips touched the water they looked up sharply as Rengard gave a hoarse cry.

"For Pete's sake, look!"

Slowly they stood up again, staring amazedly at the first evidence of life they had so far seen. Surprising life indeed!

Little creatures, so human in form it was hard to distinguish them from Earthlings, save for their blue tinted skin and large vividly blue eyes, were moving timidly from out of the shadows of the trees. In all there were seven of them, clad in loose, sleeveless garments that reached to their knees. Their

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

hair, the color of ripe corn, flowed in bushes round their heads, caught up in some cases with a blue band, but in others left to flow wild.

Rod stared at them, blinked as he saw that in their slim-fingered hands they held the melon fruits, extended forward as though in the form of a gracious offering. The feet of the little creatures, encased in soft, vegetable like shoes, made hardly any sound on the mossy turf.

"Why, they're—they're only kids!" Rengard cried. "They're not even fully developed yet!"

"You're right," whispered Eva unbelievingly.

Certainly the limbs of the little people were quite childlike. The arms and legs lacked all signs of maturity; they were lissom and supple, free from all sinew. From the difference in form of three of them, and the bangles on the hair, it was pretty obvious that three were girls, and the remaining four boys.

"Say, is this a Martian kindergarten, or what?" Rod whistled. "I don't begin to—"

He broke off as one of the girls held out her fruit more boldly, jabbed a rounded arm towards the pool. *"Juzaf!"* she observed, making a pained grimace and rubbing the region of her stomach. *"Ulfa juzaf!"* She thrust the fruit out again.

The rest of the children nodded seriously at her remark and Rod scratched his head.

"The pool," he said, taking the fruit, "is *ulfa juzaf*—whatever the hell that is."

"Yeah. . . ." Rengard looked serious. "Wish I knew what it meant. Tasted all right to me."

Pulling out his knife, Rod cut into the fruit vigorously. The juice instantly began to stream out and he held it over his mouth. Appreciatively he drained it.

"Gosh!" he whistled. "Melon, port wine, champagne, and a high ball, concentrated!" He cut the thing into pieces and chewed it gratefully. "Good as beef steak. . . . Try it. You can't go wrong."

The children looked on in pleased interest as Eva and Rengard took the rest of the fruits and made an attack on them. The stuff was surprisingly satisfying, appearing to have tremendously nourishing properties.

"There's something wrong here, all the same," Rod commented, when he had made an end of eating and put his knife away. "These kids, on earth, wouldn't be fixed at more than ten years old. What are they doing so far from the city? May have seen our ship dropping, of course, but even then—"

"Point is," interrupted Rengard thoughtfully, "do they even belong to the city? As we saw it, it was totally deserted. . . ." He turned to the pretty little group and showed them the metropolis through the trees. "City?" he asked. "City yours? You come from there?"

Their blue eyes looked towards it. They smiled to reveal white, even teeth. They even danced a little; nothing more.

"Big white chief's palaver no dice," said Eva solemnly.

Rengard shrugged. "Guess you're right. I'll have to learn their language. Sooner I know what *juzaf* means the better I'll like it—"

"The language can wait," interrupted Rod briefly. "I'm going to take a look at that city and see what's wrong with it. There must surely be somebody? The parents of these kids, for instance? Let's be looking."

"It's sure got me puzzled too," Eva said thoughtfully. "It stands to reason these kids didn't just 'grow' like Topsy. I'm for finding out now."

LICENSED TO LINTORG
ELECTRONIC REPRODUCTION PROHIBITED

CHAPTER III

The Seven Master Locks

THE party headed through the queerly fashioned, fruit-laden trees. The Martian children seemed to regard the whole business as some kind of pleasure jaunt, skipping and jumping along behind the three Earthlings.

The nearer they came to the city the more they were puzzled. The jungle led directly down onto one of the main entrance streets, thence into the city center, yet as they progressed slowly along they saw no signs of anybody. Not a thing moved: the giant metropolis loomed around and above them, the very quintessence of power—with nobody to look after it! There were not even any more children, apparently. The seven who danced and giggled with amusement, watched with wide-eyed innocence, were the only guardians.

For an hour—two hours—the party wandered in and out of the great open buildings, found machines set out in orderly array, machines of such complexity that they defied comprehension. It was pretty obvious that they were electrical, and in perfect condition, their controls all being centered on a massive switchboard.

But there was the funny thing. The master switch was locked! It was fastened around with bars of metal slotted into combination wards that no power could conceivably break—except the knowledge of the actual combination itself.

"Talk about burglar alarms," murmured Rengard. "This city looks like one plus." He looked helplessly at the smiling children, patted the head of the nearest boy in controlled exasperation, then turned about to continue the tour.

Yet everywhere they went, every building they looked in, things were still locked up. In one edifice was a vast army of robots, standing motionless. In another there stood a solitary machine—a gigantic circle of metal, its surface finely filigreed, its entire bulk supported by gracefully arched metal arms. It was not unlike a vast gong. Only a vague idea of its purpose could be gathered from tremendous horseshoe magnets grouped above and around it, which in turn linked up to a baby forest of glass tubes, insulator banks, wire wound drums, and finally by far the biggest switchboard yet. Puzzled, the three moved forward and studied it silently.

It was dominated, amongst a stubble of plugs and buttons, by seven massive switches, all of them combination-locked.

"Looks to me," said Rod slowly, "as though this switchboard is the keyboard to the whole lot. The others we've seen are probably released when this one is. I don't pretend to know how to begin—"

"Look!" breathed Eva suddenly, with a hoarse little gasp.

The urgency in her tone forced Rod and Rengard to twist round. The children gave little cries which were unmistakably of surprise. And there was reason; for lying close to the wall of the huge place was a broken skeleton.

Immediately the Earthlings were beside it. Rengard hovered over it with brooding brows; Rod fingered the dusty bones. Though it had fallen apart with age the skeleton's outline was still distinguishable. It possessed a surprisingly large skull, big chest, spindly legs, had probably been owned by a man seven feet tall.

Rod stroked his chin thoughtfully; Rengard scratched his fiery mop.

"The only remaining evidence of people outside of these children," he breathed, gazing at them as they

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

squatted on their haunches watching the proceedings. "Just what *is* the inside story on all this, I wonder?"

"Only way to find out is to adopt your method and learn the lanugage," Rod answered briefly.

"Yeah—later on. More exploring to be done yet. Come on."

They left the building slowly, and as usual the children followed them in their journeyings. They examined buildings obviously designed for residence, others for storage, then one that was a masterpiece of telescopic and radio skill. The entire mass of apparatus was quite recognizable—but locked. Still another building was piled to the roof with armaments. There were tens of thousands of searchlight objects that were probably heat rays. Crate upon crate of blue metal contained gray cylinders that looked suspiciously like bombs, but because the lattice tops of the crates were locked there was no way of finding out.

Then in an adjoining hall was something that made the three Earthlings stop dead, catch in their breath in amazement.

"Gosh! Space ships!" Rengard cried, staring on nearly fifty or so long ovoids, placed in orderly lines on both sides of a narrow gangway. Only for a moment did he stand drinking the scene in, then raced forward to the nearest one, fell back in bitter disappointment before closed airlocks.

"Locked again!" he groaned. "Did you ever see a city with such terrific knowledge and resources so completely fastened? Everything in apple-pie order—Lord knows how much power waiting to be tapped, and we can't do a thing about it."

Tireless with interest they wandered on again, the children chattering their strange language beside them. They went from one end of the city to the other, glimpsed power rooms that housed locked engines of incredible power—and so finally arrived in an immense laboratory. Here again the machines were locked, but the numberless bottles and phials on the shelves were free. Rengard glanced at them, then turned to survey seven small tubes standing in a frame on the floor, tubes which were of some glass composition, shattered now from top to bottom with shards and splinters flung in all directions.

"Seven tubes," he muttered; then a giggling laugh made him swing round impatiently. His expression changed. "Seven tubes—seven children!" he breathed tensely.

"Great Cat, yes!" Rod gasped. "You—you mean you think that these kids perhaps came from these tubes?"

Rengard did not answer immediately. In silence he went round and peered into the phials and jars.

"I'm not so hot on chemistry of Mars, but carbon's the same the universe over," he remarked at length, turning. "These phials and things have carbon in its various forms inside them. Life is impossible without carbon, of course—flesh and blood life, for instance, like these kids and ourselves.

"I believe it isn't impossible for Martian science to have created life—these children—with the machinery we see about us. Possibly the children were born in these tubes, burst them open and stepped out like a bird breaks from its egg, only to find . . . Only to find themselves alone," he finished, thinking.

"Then why didn't they die?" demanded Eva. "I never heard of a baby looking after itself from the moment of birth."

"Perhaps these weren't ordinary babies," Rod pointed out.

"More I see of this place, the more

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

I'm reminded of the *Mary Celeste,*" Rengard observed. "I'm starting in right now to learn the language. We'll make our headquarters here and eat fruit. Until we find out what *juzaf* is I guess we'd better leave that water alone. Juice can take its place."

He turned to the children, motioned them to him. They came forward readily enough, squatted in a circle around him as he sat down on the floor to begin his laborious task.

Picking the things around him as examples, he began—and persisted . . . And persisted.

In the course of the next few days, reckoned from Rod's watch since day was of course perpetual, s t r a n g e changes came over Rengard. For one thing he ate three times as much fruit supply as Rod and Eva; he drank juice until it seemed he would never stop. Nor was it entirely explainable by the terrific heat.

Outwardly, too, he was different. He exuded a sense of radiant well being and activity, slept but little, spent endless hours questioning and cross questioning the often sleepy children who now seemed to have come to regard the laboratory as their new home.

Their intelligence was by no means outstanding, and that was why it seemed so extraordinary to Rod and Eva to behold Rengard's mind leaping all the defective gaps. He conducted himself like a genius, hurdling with incredible mental agility from one point to another, piecing together the Martian language in double quick time. The first thing he discovered, to his discomfiture, was that *"ulfa juzaf"* meant *"death liquid,"* though exactly why he couldn't then determine. Trouble was, the children still had a good deal of baby talk, which rendered his task all the more difficult.

None the less he could speak it haltingly within two weeks. In a month, still giving off an aura of accomplishment and purpose, he was proficient enough to teach Rod and the girl. They found it more difficult, were only assisted in understanding by Rengard's brilliant little touches to bridge the hard gaps.

When he rested from his linguistic activities he roamed the great empty city alone, seemed to arrive at certain conclusions, for on one occasion he remarked,

"It's pretty obvious where the Martians got their power from. Those machine rooms give the answer. The whole planet can be used as a generator. The site of the master plant is directly in line with the Martian north Magnetic Pole. The planet in its revolution against the time-space ether generates power like the armature of a dynamo. That means endless and terrific power, more than sufficient to drive the city's many mechanisms."

"And how do we use it?" Rod asked bitterly. "We still don't know and these kids can't tell us anything even now."

"That's the trouble . . ." Rengard leaned against a bench and rubbed his brow mystifiedly. The children gathered round him quietly. Again he asked them the question he had so often repeated.

"Where are your parents? How did you get here?"

As usual, the shrugging of slender, blue-tinted shoulders; the frankly innocent looks and giggles.

"The machines!" Rengard persisted. "How do we make them work? Where did the men go that built them?"

"Drinking—much *juzaf,*" answered the pretty little girl who seemed to have appointed herself as leader. "They died."

"Huh?" Rengard looked at her sharply. Catching her hand he drew

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

her to him. "Listen, youngster, I know by now what *'juzaf'* means—that it's a death liquid. But why? Can you explain that?"

The child screwed up her face in thought, seemed hard put to it. Then struck with a sudden inspiration she pointed to Regnard's temples. *"Juzaf* cause that," she said haltingly.

Rengard stared in wonderment, then Rod gave an exclamation:

"Say, Ren, looks like some radiation's getting at you, else you're worrying too much. You're going gray around the temples!"

"So you are!" affirmed Eva wonderingly, pulling a hand mirror from her blouse pocket. "Here, take a look."

Rengard stared at his flaming mop his rosy face and bright eyes. The whole picture reflected back at him was one of almost marvelous good health. But certainly gray hair was creeping along the sides of his head.

"Old age," he growled, handing the mirror back. "Not that it matters anyway."

He pondered for a moment, said slowly, "You know, I'm beginning to get the hang of several of these machines, and yet I don't know exactly why I should. I've had no experience of them. Just the same, something's happened to my mind recently. I'm able to figure out quite a lot of things I couldn't manage before. Notice how easily I learned the Martian language for one thing? It's as though I've suddenly turned into a genius for no particular reason, and—"

He broke off, stopped dead, clearly struck by a sudden amazing thought.

"Lord!" he breathed. "I wonder . . .!"

He straightened up suddenly. "You two carry on; I'll be back in a while. I've an experiment to make that may settle this mystery once and for all."

He took an empty glass phial from the rack behind him and went out of the laboratory with swift strides. The children went skipping merrily after him.

For several days afterwards Rengard became completely absorbed by mysterious work of his own. Eating ravenously at intervals, swallowing quarts of fruit juice, he essayed but few remarks. His whole concentration seemed to be absorbed.

He worked with phials of water from the lakes and pools in the surrounding jungle, brought all his newly found strange genius to a problem that was entirely his own.

Day by day he was visibly different. The vigor seemed to be going from him. Streaks of gray had passed from his temples to encompass most of his red hair. The taut freshness had gone from his face; it was haggard and curiously worn.

Investigating the city on their own, Rod and Eva felt profound concern for their comrade. They knew something was radically wrong with him—something outside the scope of normalcy.

"Can't be anything in the air," Rod commented. "If it was we'd look the same, and we're both all right."

"Can only be that water he drank," the girl said worriedly. "I think that's what he's analyzing now. Remember that we were interrupted before we drank any—"

"But surely it couldn't produce genius?" Rod meditated over that possibility, then shrugged. "Oh, hell—I give up!"

He stared round the great space ship hangar into which they had come. "If only there was a way to unlock all this," he sighed regretfully. "We thought knowing the language would do it, but I guess we're as far off as ever. A whole nation's resources tied up! Think what we could do to Holroyd if we could get this stuff into action!"

ELECTRONIC REPRODUCTION PROHIBITED

"I know . . ." the girl said quietly, then tugging a pencil from her pocket she started to check off the inventory she had been making of the city's resources—mainly for her own amusement. "This city sure has everything," she murmured, ticking off her items. "Space machines, robots, syntheticising apparatus, laboratories, radio, telescopes, armaments—"

She broke off in surprised annoyance as the boy beside her suddenly snatched eagerly at her pencil and started to examine it quickly.

"Hey, give that back!" Rod snapped, in the child's own language. "Come here!" He lunged forward, but Eva caught his arm tensely.

"No—wait a minute, Rod. He's never seen a pencil before, remember. He wasn't with us on other occasions. Seems silly for a lead pencil to interest him in such a city as this, but—"

She broke off and tore a leaf out of her notebook, handed it over. "Draw. . . ." she encouraged.

The boy looked at her with his big blue eyes, then with a slow nod squatted on the floor. He thought for a moment then rather haltingly began to draw the clumsy outline of an object that was entirely obscure—at first. Eva stooped and watched intently.

"Look here, is this a drawing lesson, or what?" Rod demanded impatiently. "We'll get nowhere just standing around watching this kid draw. Besides—"

He paused, bent down beside the girl, then with a cry of amazement he snatched the paper up and stared at it.

"See what it is?" he gasped.

Eva shrugged, her blue eyes puzzled. "Looks to me like some kind of pyramid with symbols on it."

"Anything but!" he retorted, and bending down he clutched the child's wrist and jerked him to his feet. "This way!" he snapped, and whirled the surprised youngster out of the building at top speed, Eva following behind with a baffled frown. In five minutes they had gained the room with the central switchboard. Rod stared at the massive panel, then back at the drawing. The girl looked over his shoulder.

"Why, it's a pretty fair representation of the fifth switch!" she cried. "The symbols in between might pass for combination numbers and— Rod, do you think that—?"

"Listen, kid!" Rod caught the youngster's shoulders earnestly. "Do you know anything about this machine? These switches?"

The child hesitated, then pointed to the fifth switch. Without wasting a moment Rod caught him up in his arms, held him so that his slim fingered hands could touch the profoundly complicated combination lock that held the switch in place.

There was something uncanny about the way those childish hands went in and out of the rings and bars and loops forming the combination matrix —but at last, after five minutes of unerring work there was a sharp click and the lock opened!

"He did it!" Rod gasped blankly. "Well, by all that's incredible! How in the name of wonder—?"

He put the smiling child down and rather hesitantly pushed the switch into place in the lower contact blades—but nothing happened. The machinery in the great room, the forest of tubes, remained motionless.

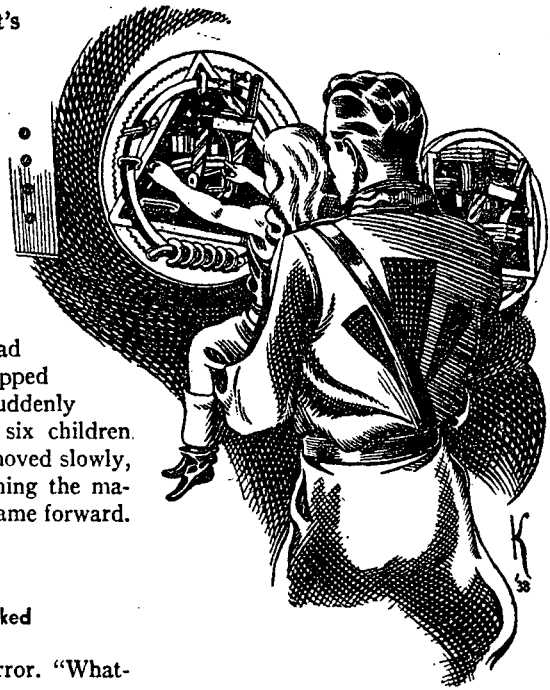
The girl gave a little shrug. "Obviously one switch alone is no use—all the lot have evidently got to be in circuit before the thing can work. Odd, though, that this kid knew all about that one switch. Unless . . ." She wheeled round, startled.

"Seven switches — seven children!" she cried hoarsely, eyes wide. "Rod,

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

what fools we've been! It's so obvious. Somehow these children are connected with the board—they're living keys! If this chap knew how to unlock switch Five, it's a cinch the other six in the lab with Ren know the rest between them. Come on, we've got to get them—"

She swung round to head from the building, then stopped in her tracks as Rengard suddenly appeared with the other six children grouped about him. He moved slowly, with obvious effort, clutching the machinery for support as he came forward.



CHAPTER IV

The City Is Unlocked

"REN!" Eva cried in horror. "Whatever's wrong?"

She stared in alarm, with Rod right beside her. The children caught something of their anxiety and their smiles vanished.

For Rengard was an exceedingly old man! His hair had changed to snow white, was even missing places where the baldness of extreme senility showed through. The formerly strong hands were bony and veined; the face sunken and bloodless. Only a slight semblance of the old fire remained in his vividly dark eyes—the eyes of a young mind housed in a tottering frame.

"Well," he whispered, leaning against a machine, and talking in a voice that was thin and reedy, "I've solved part of the mystery, and at the same time discovered how darned right this kid was when she called Martian water a death liquid. I—I haven't long to live, so listen—carefully!"

Rod and the girl supported him gently as he sighed heavily. Silent, timid now, the children congregated in a little knot and watched with wide eyes.

"The—the Martians died because . . . because of heavy water," Rengard whispered, smiling twistedly with bluish lips.

"Heavy water?" Rod mused, frowning. "Seem to have heard something about that some place—"

"Of course you have. There were—were scientific references to it on Earth a very long time ago. Way back in the early thirties, before the war came . . ." Rengard took a deep breath. "That water I drank was heavy water. Laboratory tests prove it.

"Well?" breathed Rod tensely.

"I'm—I'm coming to it. . . ." Rengard said heavily, talking again with noticeable effort. "The ponds and lakes

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

down—down here are heavy water.*

"The Martians, constituted like us to take ordinary water, could—could not cope with heavy water. Instead of them just being stimulated, they were *over*-stimulated. Over stimulation leads to a progressive speeding up of the body's molecular activity. They ate more and were given what seemed. . . . Were given what seemed to be an extremely good state of health, a—a sharpening of mentality amounting to genius.

"As I see it, with this new found genius they built this amazing city and fixed its machinery, until they suddenly began to discover that it was not anabolism they had got, but extreme ketabolism, the breaking down of bodily structure. The—the same thing that's gotten into me through drinking undiluted heavy water when we first arrived.

"The Martians were burning up, living at a furious rate of energy, skipping whole years of their life span, cramming entire masses of knowledge into a short time, until the body, no longer able to resist this telescoped evolution, broke down and plunged them into old age and—and death. You—you understand?"

"Yes—we understand," Rod whispered. "But, Ren, the forest? That grows round heavy water lakes but shows no signs of anything unusual."

"Plants are different," Rengard muttered. "Probably their constitution is such that they can break down the isotope into normal water. . . . Plants are natural chemical factories, remember; can do things a human body cannot. That's the only way I can explain it."

"And these children?" Eva asked. "They're all right."

"Why not?" Rengard whispered. "They know—don't ask me how—that the water's fatal. They only—only use fruit juice which shows the plants overcome the trouble. I—I haven't solved the mystery of the children, but I'm sure the last Martians suddenly realized, like me, that death was very close and took rapid measures to preserve an achievement they could never possibly use. . . ."

Rengard stopped. His voice had been sinking throughout his last words; now it trailed off altogether. He sighed heavily, slumped from the machine he had been leaning against and collapsed limply on the floor.

In an instant Rod caught him up in his arms, stared down on the waxen, shrunken face. His fingers felt the skinny wrist.

"Dead," he muttered, staring up into Eva's horrified face.

She said nothing; the whole business was too tragically swift for words. The seven children kept silent. It was obvious from their expressions they had no idea what it was all about.

"Nothing we can do except bury

* Rengard's discovery uncovered the mystery of the Martian race's vanishment. Obviously forced underground by expiring atmosphere on the surface, they constructed canals from the polar caps before they came below. The canals had water pipes leading down to their new home. And thus, perhaps for ages, the race lived below, out of contact with the surface, until even the canals dried up as the pole caps receded still farther. But the water balance in the cavern by that time had been fixed.

But during the ages the atmosphere thinned out, something occurred that the Martians did not suspect. Intense electric radiations from the sun, unhindered by atmosphere, reacted on the canal waters. These radiations, pouring endlessly out of an always clear sky, produced electrolysis in the Martian water. Not all at once, but by gradual changes, so gradual that the Martians never noticed the difference. For that matter, there is hardly anything different in the taste of heavy water, only a slight bitterness.

Heavy water is called such because it has more electrons than normal water. The exact process produced by the solar radiation broke down the water's oxygen and hydrogen and left a residue, an isotope. That isotope is heavy water. Little by little the change spread through the entire water and gave it more electrons than it should normally have.—Ed.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

him," Rod muttered. "Poor old Ren! He passed out like a true scientist, anyway. . . . ."

Slowly he got to his feet, shook off the lethargy of sorrow. "Better give me a hand, Eva. Afterwards we'll see if the rest of these kids know anything about this switchboard. Then maybe we'll solve the rest of the mystery. . . ."

They buried Rengard in the jungle, recited a simple service over his grave with the children around them. Then they returned to the city, had a further meal of fruits, and started anew on their line of discovery.

One by one they tested the children; and one by one it became revealed that each child had a perfect knowledge of one switch. First the boys, then the girls, unfastened the highly intricate combinations as though it were literally child's play. Six of the switches were accordingly closed into contact, but at the unlocking of the seventh one Rod hestitated and glanced uneasily at the girl.

"Ren figured that this entire planet's resources worked by planetary dynamo," he muttered. "What's going to happen if this switchboard starts everything going? We might bring the place down! It's pretty certain this last switch will make this board start working, then things will begin to happen."

He looked uneasily at the titanic circular disk in the midst of its magnets. It seemed in some way to suggest the very matrix of the whole city's resources.

"After all," Eva said slowly, "we can't be much worse off anyway. If we don't throw that switch we can stick around in this prison of knowledge until we die. Better close it, and trust to luck what happens . . ."

"O.K." Rod's fingers tightened on the heavy bar. He tensed himself and held his breath as he closed the copper blades. A little shower of sparks spurted from them. Gingerly he stepped back and looked anxiously around.

A low rumbling was creeping out of the heavy silence. The myriad small machines grouped about the giant metal circle started to hum with sudden power —the ceaseless power of a planet's own electricity generated by its own revolution, passing thereafter throughout the length and breadth of the huge city.

The noise increased, rose to the whining hum of a power house. Heat began to rise on the already stuffy air. The masses of banked tubes filled with luminous life. The horseshoe magnets glowed with somber redness.

The children gave little cries of fright, clung nervously to the grown-ups. Rod gulped and felt his forehead was wet; Eva shot him an anxious look.

"Wish I knew what was going to happen—what it's all about?" he breathed, staring at the filigreed circle in front of him. "Reminds me of a stone starting an avalanche. . . ."

He became silent again, desperately uneasy. The machines had a fixed note now—a singing throb of power that evidenced perfect engineering, of gears smoothed and lubricated to be almost frictionless. Then above the whining came another sound, of heavy clanking, coming nearer.

Rod swung round, started violently. Two robots entered the great place advancing steadily on their metal feet.

"Hey, wait a minute!" he gasped hoarsely, as they came invincibly forward. "Stop, confound you!"

They stopped dead. Rod stood blinking at them and their lensed eyes stared back, probably photographing every movement he made.

"Say, they—they obeyed!" he stam-

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

mered, turning. "I just wonder if—"

"I've got an idea!" Eva said suddenly, and swinging round she stared at the great circle of filigree metal, said sharply, "Take four paces to the rear —March!" Then she turned round again and watched with a triumphant smile as the robots faultlessly obeyed her order and halted.

"*Voilá!*" she cried.

"But how—?" Rod gasped, in wonder. "What makes 'em tick? How do they do it?"

"Just a hunch, and it worked," she answered lightly. "This city, Rod, is a flawless arrangement of machinery, geared to operate not by ordinary hand action but by thought waves! That isn't so unusual; telepathic experts on Earth can accomplish similar feats in an elementary style. . . . This central thing here with its meshed face is, I'm convinced, a magnetizer. It receives and holds the tiny electrical impulses of thoughts, just like a phonograph record receives notes. In the same way it amplifies the thoughts and radiates them. One thing is obvious. These robots have telepathic pick-ups responding to thought wave stimulus. The language doesn't matter; a telepathic command is the same in any language."

"If you're right, why did only these two come along? What about the rest of them? Why not the whole army?"

"Probably because they have different duties. These two probably respond as servants—not for instance as soldiers, or anything like that. Don't you remember saying you wished you could understand what was going to happen, what it was all about? Well, probably these two can explain and that's why they came. After all, you gave an unintentional order . . ."

"Well I'm damned!" Rod looked puzzled for a moment, then gave a discomfited grin. "Darned uncanny, if you ask me. Beats me how anybody could think up a city as perfect as this one."

"Why not? The Martians were probably far ahead of our science in any case, and when they got genius added to it—Well! There would hardly be anything beyond them. . . . Rod, we've got a whole city ready to obey us; we've got to act wisely. Here's to seeing what we can find out . . ."

The girl turned back to the Magnetizer, said steadily.

"If you two know the secret of this city, know what everything is about, I command that you explain it to us!"

The robots advanced instantly at that, extended pincer hands and grasped her and Rod by the arms. They struggled a little for a moment, then as they realized no harm was intended they submitted quietly to being led out into the street. In breathless wonder the children came trailing on behind.

"Nice trick you've pulled!" Rod growled. "Lord knows what they'll do to us."

Eva smiled confidently. "They'll only do as they've been told. Machines can't reason. Unless I'm mistaken we're heading back to the laboratory. . . ."

She was right. Without pause the robots marched them into the place, released them and walked over to one of the massive machines. It was unlocked now; everything was unlocked. The whole Pandora's Box had opened.

With quick movements the robots switched the machine on, stood aside, and became motionless. . . .

CHAPTER V

A Voice from the Past

ROD AND EVA waited, hardly knowing what to expect. Then they started forward a little as a concealed loud speaker inside the machine started

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

to hum powerfully. Followed a clicking, probably a recording tape sliding into place. A deep voice started to speak slowly, in the Martian language. The two waited, tensely listening, stumbling here and there over a word. To the rear the children leaned forward in sheer awe.

"By all the chances of Nature and cosmos," the voice said, "it will probably be you seven children, grown to adult life, who will hear this, my voice, for the first time. Listen with great care! You own a city, the heritage of your creators. You are not natural children; you have no parents. You are synthetic, born of a test tube. When a race is all but dead and must have successors, synthesis is the only course. As I record these words you are still embryoes in the test tubes—but you will break free of your glass prisons, will develop, will live. . . .

"Your brains, designed to retain magnetically produced impressions prenatally created, will be your guardians. By common impulse you will break free of your glass prisons, will live for many months on the carbohydrate deposits left around you in the laboratory.

"When that is consumed your minds will naturally lead you to fruits and their juices. You will live on them, grow strong on their nutriment, will fashion clothes from the leaves of the trees that bear the fruit. Why will you do this? Because it is impressed on your brains as a given factor that you *must* do so. It is a command, an inescapable urge. Because of the bodily construction we have designed for you, you will never touch water. It is rank poison. . . . Forgive me if I talk to you as yet unborn. I can hardly visualize you as adults, listening to me now.

"You are synthetic successors. Deep too in your brains is imbedded a certain combination code; each one of you, from the moment you grow old enough to use your hands, will have this knowledge perfectly clear—the knowledge of the seven combination locks which seal the city.

"When you reach a period when puzzlement causes you to investigate, you will inevitably turn this knowledge to account, will unfasten the city in which you live. And because each of you have this separate knowledge it will save you warring and fighting among yourselves. Without all seven of you, the city can never be unlocked; instinctively, intuitively, you all know that. But now, because you hear my words, you have reached maturity, and unlocked the city. My voice speaks to you though my body has long since become dust.

"The city is yours. Build out of it a new heritage. It has everything you can require. Supreme genius built it for you. Train your thought waves on the central telepathic brain pan and robots of varying grades, their reception units geared to different telepathic orders, will obey implicitly.

"Both your sexes have male and female organs; you are not neuter. Marry; beget children—or if you desire, create them synthetically. The two servant robots will show you the formulae for life creation if you wish it. It cannot be done mechanically. It demands your own hands and skill. Attempt it only after long study. Your children, like you, will be non-water drinkers. That is, water will only be taken after natural filterization by plant life.

"We know now that heavy water is the cause of our downfall; your brains will know it, too. For generations vast internal lakes will remain. You will build new canal tracts from the Poles, allow the forests to break the water down to normal. If you choose you can even make the water normal by

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED.

scientific methods, though it is probable that with your coming the age of water drinkers has passed away. Had we realized in time that we were dying and not gaining eternal life and genius, we would have forced the water to normalcy. The knowledge came too late.

"You need not ever fear invasion. The city is prepared with armaments against any possible interplanetary attack; though we do not for a moment believe you will have that to contend with. Only perhaps the third world will cause you trouble in the future. Be ready for it.

"I, the last of the race, salute the first of the new race . . . Salutations!"

The mechanism clicked and became silent. Rod arose from his deep thought and looked at Eva inquiringly, then at the silent children.

"Looks like we stepped in and anticipated things," he said at length. "These kids would have done what we've done in a few more years."

"Does that matter?" the girl shrugged. "We're not going to deprive them of anything—but we're certainly going to make use of what we've found. You realize of course that with all this at our command we can do anything? Even return to Earth?"

"And death?" Rod asked slowly. "Oh, no; there are better ways than that. Matter of fact, I'm thinking about Calva Neil and his short wave radio. He's definitely on our side, of course. If we could only get into touch with him . . ."

"It's an idea!" Eva whispered, her eyes bright. "Ten to one he'll still be experimenting with that short wave radio beam system of his. If we could catch contact with it sometime and let him know we're still alive . . . !"

Rod clenched his fists. "Then we could get Holroyd just where we want him," he breathed. "Right here under our fingers is a science mightier than anything he can devise. If we work carefully we can save the innocent and punish the guilty."

He fell to silence, pondering, thinking of the mighty radio rooms, listening to the dull throb of power from the city's vast engine rooms. Power—power— With which Baxter Holroyd, Dictator of Earth, had yet to reckon.

CHAPTER VI

Preparations for War

WITH the awareness of the supreme power they possessed, Rod and Eva spent a few further days taking stock of things under their command, particularly resources of attack. They studied too the central telepathic Magnetizer, discovered it was so sensitive that it reacted to thoughts from any quarter of the city, brought the required robots to do any possible service.

In consequence the two Earthlings found themselves installed in the living quarters of one of the great buildings, fan cooled to mitigate the heat of the energy-suns. Fruit food, made into all manner of delectable compounds by unfathomable machinery, was supplied to them at their slightest wish.

They had supreme comfort, reflected on the wiseness of the Martian scientist that had led him to lock up all this comfort until his synthetic followers were old enough to understand and not abuse its benefits. As it was now the children did not half understand it all, but for company's sake stayed near the two Earthlings, save when curiosity and remembrance of the recorded speech took them back to the laboratory to study curiously the dusty skeleton that represented the last man of their race.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Where the others had gone remained a mystery, unless, as Rod believed, the last scientist had rayed them out of existence to stop any spread of disease from decomposition.

Had they wished, Rod and Eva could have lived divinely in this flawless Utopia, as first lord and lady of a new era, only that their Earthborn heritage allowed them no ease. Persistently, the memory of enslaved Earthlings returned to them. They evolved plans, ordered the servants to direct them to the radio rooms, and once again studied the wilderness of radio machinery, so complicated that it took them weeks of reference to charts and plans before they began to understand what it really signified.

As they had at first suspected the vast instruments were not only radio devices, able to span to the outermost planet if necessary—but also televisionary and telescopic, working on some system of light-wave convergence that was beyond the understanding of anybody save a genius. Not that either of them bothered about the inner workings; they were faced with quite enough difficulty understanding the controls.

But results they got—by degrees. They trained the mirrored picture of Earth in one of the huge telescopic screens, brought it close enough to study its blurless, city-strewn image, the seas thick with maritime commerce, the air filled with speeding shapes. Progress, yes; all of it operating as usual for the good of one man—Baxter Holroyd.

Rod's gray eyes glittered as he surveyed the world. He glanced up at the girl and found her face expressing similar thoughts to his own.

"Revenge, eh?" he murmured, and she nodded stonily.

"Call it justice, Rod. It's more accurate."

He turned aside and studied the chart he had made of the Earth space ship's automatic control device. It gave him the precise wavelength on which to work, identical with the one Calva Neil had used to guide the vessel to Mars . . . Satisfied, Rod settled firmly in the chair before the banked switchboard and altered the frequency controls, hurled forth a radio carrier beam across the 40,000,000 mile gulf.

Another screen, immovably connected with the carrier wave, came into action and revealed the light-fast journey across infinity. Earth hurtled upwards out of the abysmal gulf: the carrier wave went clean through it, out beyond into space . . . Slowly Rod adjusted the controls, brought the carrier beam under control.

His fingers toyed over the switches he had learned to use. Silently he marveled at the static-free power of the apparatus. He spoke mechanically into the transmitting microphone.

"Calling Calva Neil . . . Calling Calva Neil . . ."

He kept up the call incessently, the girl taking it over when he got tired. But between them it took two weeks before they got any response. Then it was in Calva Neil's own voice, obviously much puzzled.

"Calva Neil replying. Who's working on this wave system? Is it a cut-in, or what?"

Rod grinned with delight and stared at the screen. The carrier wave had picked up the inflowing light waves from the source of origin, revealed the blond-headed, ruddy cheeked young scientist seated in his laboratory, his baffled blue eyes searching his apparatus. Around and behind him loomed the essentials of his brilliant system. A brief shifting of the carrier wave brought in the entire laboratory; save for Neil it was empty. Therefore safe

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

to speak.

"This," said Rod slowly, swinging back to the scientist, "is Rodney Calab calling you—from Mars!"

Neil's amazement was so profound Eva burst into a laugh.

"It's—it's impossible!" he gasped. "And yet I . . . I was testing this carrier wave in readiness for ships to depart from Earth into the void. Ships bound for Venus as soon as they're ready. Somehow you must have gotten onto it as it experimentally reached to Mars . . ." He paused, rubbed his high forehead. "Guess I'm going nutty," he said curtly. "Whoever you are you're pulling a damned silly joke, cutting in on my length."

"If I told you you were rubbing your forehead with perplexity what would you say, Calva?" Rod asked calmly, studying the screen.

"Huh?" Neil stared wonderingly in front of him. "You don't mean you can even use spatial television?"

"I'm Rod, and this is Mars, and I'm using television," Rod said briefly. "Get that straight, Calva. There isn't any time to waste. You're alone, aren't you?"

"Sure. I'm working for Holroyd on this short wave for a space expedition and— But you know that. He may send for me at any moment. Say, I'm darned glad you're alive. How the devil have you managed to—"

"Keep quiet and listen!" Rod interrupted, then he went into a careful description of all that had taken place. The distant Neil sat in astounded silence as he listened.

"So now you know," Rod finished grimly. "Holroyd's reign is coming to an end. I want you to take action, take up the plans where I was forced to leave off. You've got to start an uprising, a revolution—anything. Get together all the people who are opposed to Holroyd's rule and collect them so far as possible on the western side of the country. That'll fix Holroyd in the eastern half, and his men will concentrate there too.

"Definitely you'll start a war, but carry on with the assurance that I'll send forces to aid you. I want Holroyd's army drawn into the open so I can eliminate it—and the more you can gather in the west the better. I'll give orders for the west to be left untouched. That clear?"

"Clear enough," Neil nodded; "and I think I can manage it too. The cities to the west aren't as closely guarded by Holroyd's minions as eastern New York. Point is, are you sure of *your* forces? Remember that Holroyd has heat rays, bacteria bombs, gases, ultra fast rocket ships—"

Rod grinned mirthlessly. "Leave that to me. I've got stuff right here that'll turn Holroyd inside out. You just do as I say. When you're free to communicate again do so. You needn't give me any signal when to start; this telescopic appartus gives me a very good view of all that's going on. Good hunting, old man!"

"O. K." Neil's face was set and purposeful. The vision of him faded as Rod broke the carrier wave transmission.

With hardly any intermission, sleeping in turns, Rod and Eva kept a constant watch on the telescopic screen, held Earth steadily in the field of vision in its journey through space—but again several weeks elasped before they saw any sign of a change, and then it was sudden and violent.

Explosions vomited from various points of the United States, centered particularly in New York. There was evidence too of convergence of battleships towards the eastern shores. They were thick in the Atlantic. The air too was filled with hurtling, darting shapes.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"War!" observed Rod, lips tightening. "Neil's taken the plunge all right. Dictator armies versus the oppressed, with Holroyd at the head of the former. See those black bombing planes? They're his. The white ones are Neil's own—the ones we were going to use when we were captured. Now we can distinguish between them we can get busy."

He issued a sharp command. "Army, prepare for action!"

It was no meaningless injunction he uttered. Through the intervening time he had learned enough of the vast Martian robot army to realize their artificial brain pick ups were geared to all militant orders. Naturally, they could not reason, but they could follow out a whole chain of orders given the initial stimulus. With their actions watched in a televisor screen they could be controlled to do anything, supreme in the fact that they were deathless, unerring.

Turning a little, Rod switched on the short-length televisor wave, directed it to penetrate to the robot hall two blocks away. Activity was everywhere in the great space. The robots, the command received, were marching. In ten minutes, under further orders, they arrived in the space ship hangar, paused in orderly groups before the fifty vessels. As Rod had reason to know, they were already equipped with all manner of war devices; the armament room's supplies would not need to be touched.

"Enter forty nine ships!" he ordered; then glanced up at the girl. "The fiftieth one is for us," he explained—and watched the airlocks shut like a row of eyelids.

"Fire your fuel chambers!"

The fuel, which was apparently a rich magnetic oxide, fired not by flame but by a complicated pressure process, hurling terrific recoil power into the gleaming tubes. At Rod's order all tubes flared redly, filled the gigantic place with poisonous blue vapors. Again he snapped an order. The roof slid away under a robot's tug at a lever.

Gently, ordering and countermanding, maneuvering literally with his thoughts, Rod forced the robots to raise their machines in a glittering armada—upwards through the roofless opening, then onwards toward the mighty shaft which gave egress to the surface.

The machines traveled swiftly, held perfectly in the televisor screen. Television followed them as they swept up the long shaft, outwards over the desert, up into the star ridden void towards the green star of Earth.

Rod sighed with relief. The most difficult work was over. Forty nine avengers were on their way.

CHAPTER VII

Holroyd's Defeat

ONCE the machines were steadily on their way, requiring but little actual guiding in empty space, Rod turned his mind to other things and left Eva in charge.

The weapons owned individually by each ship were not mere ordinary implements of war, but devices infinite and terrific in potency. For one thing, each vessel was supplied with a power pick up, by which it received power from Mars itself, sent over another radio beam—power born of Mars' magnetic currents, concentrated at the North Pole with terrific intensity from the nickel iron under terrific pressure deep in Mars' core. Power begotten of the planet's dynamo like qualities against the ether.

This power, which gave the city its strength and resources, also possessed an inconceivably strong surplus, which, passed through magnets, transformers

ELECTRONIC REPRODUCTION PROHIBITED

and induction coils could be given to the armada over radio beam and thus utilized. Rod had only the vaguest idea what this power might do. That it fed the vessels' armaments he already knew, but to what extent in action he could only picture.

Satisfied that the power transmitting apparatus was in order, ready to be released by a robot the moment he gave the command, he returned to the radio room and took over the girl's work.

There was one advantage with the Martian vessels—the terrific speed they could attain and the impossibility of the occupants collapsing under the accelerative strain. So it was that the ships streaked across infinity at a speed nearly equaling that of light itself. The passage of forty five minutes revealed via the televisor that the Earth filled the whole field of view in front of them.

The telescope, on the other hand, revealed a flurry of excited action passing over Holroyd's army, concentrated in and around New York, then stretching half across the less congested regions of the United States to the opposing army of Calva Neil in the west. It was not a flurry that betokened a weakening of morale, but a sudden gathering together of massed forces.

The invaders had evidently been sighted. To question the why or wherefore of their coming was not possible in the urgency. But Holroyd must have wondered at the defiance of his orders when he called on Neil to stop the personal war and instead unite in common attack against the unknown enemy. Neil, knowing full well what he was about, bluntly refused, continued to harrass the Dictator's army, his white planes zooming and power diving relentlessly.

But on the ground he withdrew his warfare further westwards out of range of the battle he knew was to come.

Curtly Rod gave the order for power release, issued orders to his now forty million mile distant army.

"Remember to attack only the eastern coast and the black airplanes—no other . . ."

He waited a few moments. Martian ships and the darting, inquisitive invaders of Holroyd swarmed through the sky. From down below anti-aircraft devices stabbed upward with livid beams of violet. One Martian ship, caught amidships, crumpled instantly.

Rod set his teeth; the power would be there by now, ready for the fleet to utilize.

"Fire!" he commanded, and watched breathlessly with Eva clutching his arm.

The forty eight machines abruptly glowed deep violet. Energy, released by their power pick ups, encompassed them in a veritable shell, energy which forced the molecules of the ships' construction into such a tight interlacing, invisible shield that a heat ray was instantly deflected like water against steel.

In that instant Holroyd's fleet realized it was fighting something beyond its powers. The shattering strength of their flame guns, their mightiest shells, made not the least impression.

The Martian machines, incredibly fast, hurtled in and out of the slower Earth masses, flung forth ethereal waves that had the effect of destroying molecular cohesion and forced the vessels to literally fall to bits in mid air, dropping twisting, turning figures to the raging battle ground below.

Dark red rays, drawing their power from the inexhaustible source on distant Mars, belched abruptly through the Martian vessels' screens, stabbed to Earth. An entire army unit, struggling manfully with anti-aircraft devices in the center of New York, vomited skywards in a sheet of flame in which all

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

trace of matter had utterly gone. Instant conversion into energy was the only explanation, produced by still another ether vibration forcing electron and proton into contact and thereby canceling out atoms into splashes of cosmic rays.

"The tallest building below you—destroy it!" Rod commanded.

He knew that building; his face was rigid with bitter hate as he regarded it. Holroyd's Executive Building, having within it the Hall of Judicature. Also it was the spot from which he would certainly be directing operations.

Rod waited while his message flashed across space, then as it was received the impregnable Martian fleet swept round to obey. Here and there, essaying a last desperate attempt, the Holroyd machines hurtled up in a solid wall for a final stand. It was final indeed.

A blasting wave of destruction withered against them, sent them hurtling in all directions, smashed them, melted them, blew them into infinite nothingness. Untouched, g l o w i n g steadily, the Martian armada sliced through the barrier, swept down in an avenging horde on the tall tower of Holroyd's headquarters.

The tower vanished in a brilliant flash of light as nameless power snicked at it. Then, maneuvering round, twenty of the vessels trained the full force of their devastating powers on the edifice. Bricks, metal, all possible formation, lifted heavenwards out a mile deep crater! Dismembered bodies, debris and smoke spouted to the sky. The scurrying people around the building flew backwards under the terrific discharge of superheated gas and compressing atmosphere.

"Continue!" Rod ordered implacably; then turned a little as Eva grasped his arm.

"Rod, isn't it enough?" she asked in a low voice. "After all, you have the mastery now and—"

"There are minions of Holroyd in that army," he retorted. "I'm going right through to the finish!"

He watched in brooding contentment as the armada returned to the attack—but the result now was a foregone conclusion. No ship, no human, could stand against fleshless robots, planetary power, and incredibly destructive devices. On the eastern side of America mile upon mile of battling men were incinerated or buried. Ships ripped to pieces, sank in boiling tumults.

In the air, black ships split in twain or fell, rays swaying crazily as they fell on the maddened hordes beneath. Blackness ate into the ground as it was literally burned into ashes under the feet of the demoralized thousands.

But, still true to orders, the Martians made no effort to attack the western side of the States, whither the survivors of Holroyd's army were painfully struggling, all desire for fight gone.

"It's massacre!" Eva said suddenly, as the last two black airplanes went down to the ruins below.

"Justice," Rod answered quietly—then he turned sharply as the remote control radio set suddenly livened on its signal tube. Instantly he closed contact.

"Yes?" And he had to wait for the light-fast radio wave to hurtle to Earth and return with the answer. On the screen appeared Neil's grimly triumphant face.

"Call an armistice!" he cried. "We've definitely won. What is left of Holroyd's army is on the run. We're ready for them if they ever get this far, which I doubt. Oh, boy, I don't know what you've got packed into those ships, but it sure is hell!"

Rod smiled faintly. "O. K., I'll have the ships descend and there wait for

LICENSED TO MMO
ELECTRONIC REPRODUCTION PROHIBITED

further orders. I'm coming back to Earth with Eva at the earliest moment—"

"You realize, of course, what you've achieved?" Neil asked, his eyes shining.

"I guess so," Rod assented. "We'll bring living back to what it should be, where every man can have liberty. I've decided to lock up this city when I leave it. We've had our worth out of it, and it's not our job to interfere with the natural legacy of these Martian children. None the less I think they'll be useful friends to have. Their city here has such science that it'll be wise for us to cultivate it. And I mean *cultivate* it," he finished grimly. "Not use it for destructive purposes."

"Naturally, you'll be the new leader of Earth," Neil said quietly.

"I hope so . . . Well, Cal, that's all for now. You've done a swell job. See you on Earth."

Rod switched off, turned to the girl, glanced across to where the children were watching with their usual silence. Then he said quietly, "You think it's our duty to lock this city when we leave?"

"Definitely," Eva nodded.

Rod turned aside, pondered for a moment. "Guess the robots and ships don't belong to us," he commented. "They'd better come back here." He broke off, said sharply, "Cease fire! Return immediately!"

"When they're back we can leave," he smiled. "And shall I be glad. I'm itching to get back to Earth for one very good reason—"

"And that is?"

"So I can have a darned big glass of water!"

Behind them came the sound of childish giggling as their lips met and clung.

(Continued from second cover)

inner world would attack him, since he would be alien, and since life in such a world would depend on strife for its existence.

Like a hothouse, this inner world would produce giant fungus-like growths, and tremendous toadstools and mushrooms would sprout everywhere, more than likely poisonous.

Certainly, this inner hollow of the earth would be nowhere near as ideal as the outside. It would not be a comfortable, or desirable place to live. In fact, it is to be doubted if mankind could even live there, even under advanced scientific conditions. It would mean a constant, unrelenting warfare against a savage world.

In a constant temperature such as must exist in an enclosed world, there would be no such thing as rainfall. There would be only a tremendous and constant precipitation of dew. Temperature changes are necessary to cause rainfall. There would be no clouds, constant central-sunshine, and unremitting heat. The only precipitation would be at the opening, resulting in a snowstorm at the pole. Is this where we get our polar caps?

That's the theory. You can take it or leave it.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

(CONTINUED FROM PAGE 81

over him, he slumped to a chair weakly.

Vivian's frightened face was at his shoulder. "You—you saved her?" she sobbed.

Ray nodded. "She is safe at one of our stations—" He glanced at the switches. "Space Ship Center."

The girl cried with tearful joy, "Oh, Ray, I knew you wouldn't let her do it."

"But how did you know what she was planning?"

Her head turned away and he realized that his question required no answer. Obviously both girls had had the same plan for making the supreme sacrifice when he had intercepted one with his order for the designs.

Dwight entered briskly and addressed Vivian in a courteous manner, "I'm sorry, Mrs. Lattimer, but I failed to find your coat." He suddenly stiffened in surprise. "Where's the emergency operator? Has he been officially dismissed, Mr. Lattimer?"

"Yes," Ray lied. "I took over, but I'm turning it back to you now. Please deliver Mrs. Lattimer to Buchanan's at once. Then I'll have another order for you—a very special one—concerning myself." There was strong decision in Ray's tone that made faithful employees like Dwight ready to obey, and devoted wives like Vivian ready to trust.

Five minutes later a television conversation between Buchanan's and Space Ship Center assured all parties involved that Ray Lattimer's plan was off to a successful start.

Both Vivians were shocked to hear what Ray had seen—Blougan inadvertently stumbling into a death trap; both were rejoicing that they had not taken that exit from happiness.

Several of the guests at Professor Buchanan's party enjoyed looking through the designs of radio transit which President Lattimer laid before them, while his wife looked on radiantly; while in a space ship rocketing toward Venus, another Ray and Vivian lolled in their compartment, chatting over what fun it would be to find places for themselves on a new planet.

Wha'd'ya mean, twenty-four dollars for this whole island? Don't hand us that stuff, Mister!

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

INVISIBLE

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

INVASION

A weird drifting death blanketed London. Thousands died. Buildings crashed. Bridges crumbled. And Ingram ventured into the very heart of the deadly area to find the reason for it all

BY FREDERIC ARNOLD KUMMER, JR.

CHAPTER I
Havoc in London

THE big car thundered westward, rocking, swaying, as its grim-faced driver avoided the crowds of refugees.

Steve Ingram, pushing tanned fingers through his sunburnt red hair, turned to the lean grey man at the wheel.

"Getting worse, Sir Geoffrey," he muttered. "These refugees will block the road altogether soon."

"That's the fault of the newspapers." Sir Geoffrey Wicke shook his head. "Keeping this horror from the public in hopes of avoiding a panic! They should have known that word of mouth with its exaggerations would be far worse! Unbelievable that in this, the twentieth century, we should spend two weeks at Wicke House, not sixty miles from London, and still not know of the terrible events taking place in the city!"

Mona Wicke, a pale, slender figure between the two men glanced at the crumpled telegram once more. The already familiar words burned into her brain.

"Unknown plague sweeping London. Situation acute. Thousands already dead, more dying. Your presence requested at emergency meeting St.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Luke's hospital 5 p. m. today. (signed) Willis."

"Oh, Dad!" the girl whispered. "Doesn't anyone know what it is?"

"No one." Sir Geoffrey's voice was dull. "That's why they need me. Toxicological research may determine its cause. I phoned Willis just before we left. His description of the symptoms was incredible. Yellowed skin, running sores all over the body, lung tissue destroyed, blindness, the eating away of living flesh! Ghastly!"

Steve Ingram stared moodily at the road before them. Hundreds, wide-eyed with fear, in motor cars, lorries, on foot, carrying their household possessions with them. Frightened multitudes, driven on by dread of infection, seeking shelter they knew not where. Inns, farmhouses were closed to them, since they came from plague-infected London; many appeared weak from starvation, exposure. Plodding pathetic figures under grey leaden skies . . . a mad dream it seemed to Steve.

A month before, he had come to England, vacationing, had met Mona, been invited to Wicke House for the shooting season. Two weeks of lazy, quiet living, made doubly attractive by Mona's presence, and now, out of a clear sky, this grisly horror the third horseman of the Apocalypse, sweeping aside all else with bony, leprous fingers! Impossible, still, to believe that all this was real. . . .

"You'll be sailing for America at once, I suppose," Sir Geoffrey said, his eyes on the road.

Steve felt Mona's fingers press his shoulder.

"As a chemist, sir," he said, "I want to offer my services to the British government. I may be able to help. . . ."

"Good lad!" Sir Geoffrey nodded approvingly. "There'll be plenty for you to do!" He glanced at his watch, frowning, bent lower over the wheel as the big car leaped ahead.

IT WAS late afternoon when they reached the outskirts of London. Here the road was almost blocked by haggard-eyed fugitives, some in an ugly mood, their dust-covered faces dull with fear. As they entered the city the scene became one of pandemonium. Everywhere were milling thousands, intent on escape from the mysterious yellow death. Sir Geoffrey was obliged to drive at a snail's pace to avoid accident. Once a grim-eyed man, his face contorted with terror, sprang to the running board, demanding that he be taken from the city. Steve leaned out, as the fellow tore at Mona's shoulder, crashed a knotted fist into his mouth. The car rolled on. At length, nearly an hour late, they drew up before the gates of St. Luke's.

Sir Geoffrey glanced at the sullen crowd about the entrance.

"Better come in with me, you two," he said. "I'll lock the car, speak to a policeman. Not safe, out here, with these desperate people."

Mona clutched Steve's arm as they went up the steps. In a world suddenly mad, the protection of this tall, red-headed American seemed very important to her.

"Stick close, honey," Steve said, smiling.

The big room on the left of the hall was blue with smoke. Half a dozen grave-faced men sat about a table, studying a curiously-marked map of the city.

"Ah! Sir Geoffrey!" A slim man, with dark, hollow eyes came forward. "We were afraid the condition of the roads would delay you. This is Mr. Vareth-Martin, from the Home Office. Dr. Morton, Sir John Alwith, Dr. Fabian, I think you know. And Dr. Con-

LICENSED TO CNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

rad Stengel." He motioned toward a thick-set bespectacled German sucking a huge, unlit pipe. "Discoverer of the poliomyelitis germ and Berlin foremost pathologist until politics forced him to leave his home and seek refuge here."

Sir Geoffrey greeted the others, unsmiling.

"My daughter Mona, gentlemen," he said. "And Mr. Stephen Ingram, a friend. I was afraid to leave them outside."

"We understand." Vareth-Martin nodded. "Well, Sir Geoffrey, Dr. Willis has just given us the rather discouraging report of the Emergency Medical Committee. No progress, so far. No germ isolated, the means of transmission undiscovered, and no method of checking its spread. All hospitals are overcrowded and the death toll mounts alarmingly in the stricken areas. Accompanying disorders, fires, looting, panic, are hampering our efforts. The first few cases, recorded several weeks ago were in the vicinity of Croydon. Since then it has become a zone, roughly circular in shape, including Beckenham, Bromley, Wimbleton, Kingston, and spreading daily. We here are near the edge of this zone. Perhaps tomorrow St. Luke's will be within it although the direction of its spread is never certain." Vareth-Martin paused solemnly, his face lined with concern.

"In the past two weeks thousands of refugees have fled London to the rural areas, carrying with them, perhaps, the plague germs. Industry is at a standstill and all foreign governments have already forbidden trade with Britain for fear of plague germs being carried to their countries. England is isolated, faced with terrible extinction. Gentlemen, in your hands and the hands of similar volunteer medical units, rests the fate of the Empire!"

AS Vareth-Martin ceased speaking, a heavy silence fell over the room. Dr. Willis stood up, a frown on his sallow, thin countenance.

"Gentlemen," he said gravely, "there is little more to be done here. We have all been appointed to certain tasks. Sir Geoffrey, of course, will work in our laboratory. Dr. Stengel will carry on his own investigations at his place of residence. I shall continue my work in the zone as" . . . he coughed hackingly, gripped the table to steady himself . . . "as I have done for the past week. It is now" . . . he glanced at his watch . . . "six o'clock. I make a motion that we adjourn."

With grim nods the others agreed. Steve, who had been staring fixedly at the stonework of the window-sill, touched Willis' arm.

"May I see your watch?" he asked. "Mine's stopped . . ."

"Surely." Willis handed him the timepiece, a cheap nickel affair.

Steve adjusted his own watch, passed it back. A moment later he and Mona had joined Sir Geoffry and Dr. Stengel at the door.

"We're taking Dr. Stengel home," Wicke announced. "It means going through the plague zone, but I want to have a look at it anyhow. Steve, you'll drive. Mona, I think you'd better remain here. . . ."

"No." The girl shook her head. "I'm going with you!"

"So, Miss Wicke," Stengel said in his clipped, curiously out-of-breath voice. "You put these cowards who run away to shame!" Bowing ceremoniously, he held open the big hospital door.

The street outside was wreathed in swirling fog. At the dispensary door a line of bent, spectral figures were waiting admission. Through the opaque mist could be heard their hollow coughing, their feeble gasping voices. As Sir

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Geoffry, Stengel, and Mona climbed into the car, Steve hung back for a moment, staring fixedly at the grey stone front of the hospital.

"Steve!" Sir Geoffry called. "Coming?"

"Right!" Steve's fingers brushed against the cement joint between two of the big stones, knocking loose a shower of sand. Frowning, he turned away, climbed into the driver's seat of the big sedan.

"Directly into the zone," Stengel murmured. "Toward Beckenham."

Silently, Steve obeyed. And idea, an idea terrifying, well-nigh incredible, was beginning to take shape in his brain. He stared fixedly ahead, trying to piece together the odds and ends of the puzzle.

THE streets were growing more deserted now. Ambulances rolled by in long rumbling rows; Red Cross stations in abandoned shops, houses; and more ghastly than anything else, huge trucks laden with sheeted corpses heading for the disposal furnaces. Warning signs greeted them at the edge of the danger zone but Steve urged the car on. Soon the streets were completely empty, dark canyons shrouded in ghostly white fog. The lands of death, Steve thought. He glanced at Mona, patted her hand reassuringly. On the rear seat Dr. Stengel was talking in short, jerky sentences.

"... new, invisible germ!" He paused, sucked at his eternally unlit pipe. "Transmitted by contact, *nicht wahr?*"

"Germ?" Steve shook his head. "Something bigger, doctor, more terrible. Some strange, satanic force. . . ."

"Ach!" Stengel chuckled. "So unknown things always appear! Soon it will seem nothing. There will vaccines or innoculations be!"

"Perhaps." Steve glanced in the rear-view mirror at Sir Geoffry's lean, weatherbeaten face. "But as far back as St. Luke's, outside the present zone, I noticed definite evidences of a breakdown of . . ."

A loud crackling sound from somewhere above drowned out his voice. As in a dream he heard Mona scream. The car rocked crazily, dust blotted out all vision. A sickening crash, the thud of falling objects, and then . . . oblivion.

Steve Ingram's first sign of consciousness was Mona's voice, repeating his name, endlessly. Shaking his head, he dragged himself up to one elbow, stared dazedly about.

"Steve!" Mona knelt urgently beside him. "How do you feel?"

"All right," he murmured, touching the lump on his temple. Then, glancing at the battered car, half-buried in stony rubble. "What . . . was it?"

Sir Geoffry, disheveled, covered with brick dust, frowned.

"The cornice of that house, there, fell onto the car," he said. "A miracle we all aren't dead. Queer thing! The building looks solid enough. You might think someone had tried to . . . but that's nonsense, of course."

Steve glanced up at the house, nodded thoughtfully.

"Where's Dr. Stengel?" he asked.

"Stengel?" Sir Geoffry asked. "Odd, that. I pulled him out of the wreckage; he was badly shaken up, bruised. The first thing he said was, 'Where's my pipe?' Naturally I didn't know where it was. He nearly went wild, then. Rooted in the rubble for perhaps five minutes, while we were working over you, muttering about his pipe. Then, all of a sudden, he sprang to his feet, commenced to run. I tried to stop him, but he disappeared in the fog. I'm afraid he must have gotten a severe jolt on the head. Hate to think of him in that condition wandering about this hell."

"Damn queer." Steve set his teeth,

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

pulled himself upright. As he did so, Sir Geoffry bent, picked up an elaborately carved meerschaum.

"Stengel's pipe!" he muttered. "You must have been lying on it!" He stared a moment at the big meerschaum, dropped it into his pocket. "I'll give it to him, next time we meet."

STEVE nodded, still somewhat dazed, turned to Mona. The girl swayed unsteadily, gripped her father's arm.

"Sorry," she whispered. "Feel a little faint. . . ."

Steve glanced at her, frowning. That burning sensation in his eyes, his lungs! They had to get out . . . get out of the plague zone! Suddenly, from somewhere behind him he heard a warning rumble, and the street shook. Gasping, Steve whirled about. The massive stone arch of an overpass some two blocks away was beginning to crumble! Sir Geoffry swore, wide-eyed. Great blocks of granite were tumbling from the bridge, clouds of dust arising. All at once, in a tangle of twisted girders and shattered stone, the overpass collapsed!

"God!" Steve stared at the clouds of dust, rising like smoke to mingle with the fog. "London's falling down about our ears! We've got to get away! Quick! Come on!"

He and Sir Geoffry supporting Mona on either side, they commenced to run. To Steve, it seemed a weird incomprehensible nightmare. The patter of their own feet in the silent, empty streets, the occasional thunder of falling masonry, the stench of rotting flesh, and the lean, wolf-like things that slunk away at the sound of their approach. Eons, it seemed, that they ran. Sir Geoffry's breath came in harsh gasps; Mona was all but unconscious; Steve, sick from the ache in his head, the burning of his lungs, staggered on by force of will alone. Suddenly lights gleamed in the fog ahead, voices echoed hollowly. Steve heard Sir Geoffry mutter, "Red Cross station," and "edge of zone" . . . and then something seemed to snap in his brain and the world dissolved into dim shadows.

CHAPTER II

Steve's Suspicions

SIR GEOFFRY WICKE slumped over the laboratory table, his red-streaked eyes dull with despair. For five days he had worked, with only brief snatches of sleep and rest, seeking to isolate the germ of the yellow death. Five mad, feverish days, shifting his equipment from place to place, retreating before the deadly plague zone.

Wearily Sir Geoffry glanced at the map on the wall. New zones had sprung into being since that day when he had come to London. Outlined in crimson on the map, they seemed great sores, spreading over the surface of the city. Sores . . . like those which dotted the skin of the victims of the yellow death.

He closed his aching eyes, tried to think. Tortured faces haunted his brain. Blind, agonized faces, eaten into shapeless, crimson blobs, racked with coughs, crying in hoarse, inhuman voices for the help that did not come. And the collapse of the buildings . . . what lay behind that? Bridges, subways, tall skyscrapers, crumbling into shattered ruins. The day of doom for London, perhaps for all England, all the world. Already the toll had mounted to nearly three million lives.

Drawn by a macabre fascination, he strode to the window, peered out. A man-made inferno, the city seemed. Fires, the result of shorted wiring, lit the sky with a terrifying ruddy glare. Dimly he could hear the crash and rumble of falling masonry, the screams of

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

pain from the dying plague sufferers in the emergency hospital below. In the square a great heap of yellow-skinned corpses was being soaked with gasoline preparatory to cremation. A moment later the funeral pyre blazed up, with a sickening smell of charred flesh. Sir Geoffry shook his head dazedly. Unreal, horrible! Sights such as this in staid old London!

Footsteps sounded in the hall outside and a dark man wearing the uniform of the Plague Volunteer Workers entered the laboratory.

"Today's reports, Sir Geoffry." He turned to the map, red pencil in hand. "Zone one spreading west. Zones two and three are merging near Tottenham. The new zone four is sweeping along the embankment. The death of the first Lord of the Admiralty, the Foreign Secretary, and many members of Parliament is reported. St. Paul's and the Bank of England are beginning to crumble and the government archives are being moved to Manchester. The fires are increasing and the food shortage is growing more acute. Outbreaks of violence . . ."

"All right, Henly." Sir Geoffry dismissed the man with a wave of his hand, bent to study the bit of lung tissue beneath his microscope. Perhaps the use of a blue dye might reveal. . . .

Footsteps again interrupted the doctor. Impatiently he glanced up. Steve Ingram, his face drawn, pallid, stood on the threshold.

"STEVE!" Sir Geoffry frowned. "You've no business up with that concussion! You've been in bad shape since that day in the zone, Mona tells me. You ought to be in bed!"

"Bed?" Steve laughed weakly. "Lie around nursing a simple concussion when every bed is needed for people dying of the plague. I've got to do my part in the struggle." He turned to the window, stared moodily at the flaming, smoking hell that marked the huge, ever-growing zone one, the first and most terrible of the plague areas.

"What is it?" Steve whirled around, his eyes aflame. "You know it's no plague, no disease! It's destruction! Destruction of life, of vegetation, of stone and steel! An alien, unknown force, Sir Geoffry, bent on reducing this city to a lifeless, barren desert! Destruction, and mankind is powerless to stop it! If only someone could go into the zones, study the reactions closely. . . ."

"No use." Sir Geoffry shook his head. "Of our last three expeditions not one man returned. Suicide to enter the zones. So many of our greatest scientists have tried, and paid with their lives."

"Stengel, too?"

"No word from him since that day you were hurt." Wicke glanced the huge Dutch pipe on the mantel. "Poor old Stengel!"

Steve picked up the pipe, examined it curiously. The bowl was deep, long, and the hole in the stem unusually large, as big as a lead pencil. Steve thought of Stengel's ceaseless sucking at the unlit pipe, his curious manner of speaking as though out of breath. He stared at the charred tobacco at the top of the bowl, poked at it thoughtfully. All at once he straightened up, his eyes glowing fiercely.

"Sir Geoffry! Where did Stengel live?"

"Eh?" The toxicologist fretted with his moustache. "Why, on Kenyon Street . . . 641 West, I believe. Why?"

Steve turned to the map on the wall, pored over it closely.

"Kenyon Street!" he exclaimed. "Just what I thought! The direct center of zone one! Sir Geoffry" . . . Steve

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

laughed harshly . . . "if anyone wants me, tell them I'm going to return this pipe to its owner!"

And before the doctor could stop him, he had clattered down the steps, dashed into the street.

IT was a full hour later when Steve Ingram approached the edge of the plague zone. His face was pale, set; the pockets of his coat bulged with packages. For just a moment he glanced about the little outpost, with its Red Cross station, its ambulances, its trucks, then, facing toward Croydon, he plunged into the silent, deserted streets of the zone.

Utter desolation lay before him. Rows of houses, some intact except for fallen cornices or broken windows, some mere heaps of rubble. In spots where the subways had collapsed, yawning crevasses gaped, and fallen electric wires, sputtering viciously, lay like giant snakes to strike the unwary.

Steve had penetrated several blocks into the plague zone when he felt that stinging sensation in his mouth, his nose. Halting, he drew from his pocket two packages, one, a small cardboard containing a white powder, and the other a roll of damp bandage. Steve was just sprinkling the bandage with powder when he heard footsteps behind him.

"Steve!" a familiar voice cried. "You can't! It's suicide!"

"Mona!" He whirled about, terrified at the thought of her pale, poignant beauty in this place. "How did you know?"

"Dad. He told me." She placed a hand upon his arm. "No one can live more than an hour or so in the heart of the zone, Steve. Come back now while there's a chance!"

"I can't." He shook his head stubbornly. "If I can find Stengel, I may be able to learn the cause of the yellow death. I've got to go on!"

"If you go I'm coming with you," the girl said bravely. "Sink or swim, Steve, for both of us!"

"All right." He nodded, admiring the girl's bravery. "Keep this on no matter what happens." He tied a length of bandage, liberally coated with the white powder, about her head, covering her nose. "Breathe through it and don't open your mouth."

Mona nodded, watched him curiously as he impregnated another strip of bandage, wound it about his own head. A moment later they were heading south, toward the heart of the plague zone.

MEMORY of that walk was stamped in a series of vivid, kaleidoscopic pictures upon Mona's brain. Shadowy streets, the gibbous moon veiled in smoke, the utter desolation of the once-populous area. The horrible sprawling figures that lay here and there among the ruins . . . some, yellowed, festering, eaten away . . . some, black, bloated, decomposing . . . some mere, rag-clad skeletons.

Once, in passing a deserted grocer's shop they saw lean, bony creatures pawing over shelves of food. Living things, inhuman, their red eyes gleaming through matted hair, their features transformed by the ravages of the plague into grim travesties of mortal life. Gibbering, shrieking, they stuffed their foam-flecked mouths with canned delicacies, fighting like beasts over choice morsels. For months after Mona could not drive the memory of their furious howls, their insane, screaming laughter, from her mind.

Nearly an hour passed but still Steve led the way forward, glancing at such street signs as remained standing. The girl's eyes were beginning to ache, her

LICENSED TO NZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

skin to burn. Twice they barely escaped death when houses near them collapsed; and on one occasion a blazing filling station, its gasoline tanks ignited, exploded, spattering them with fiery embers. And still Steve plunged forward.

Mona was staggering from exhaustion when Steve gripped her arm, motioned for her to stop. Ahead of them was a house, dark, forbidding, yet curiously intact in the rows of completely demolished homes.

Slipping from shadow to shadow Steve and Mona moved closer to the big, gloomy house. As they approached, several queer features became at once apparent. For one thing, the mortar between the bricks shone with a peculiar glass-like sheen; a protective coating of some sort, Steve decided. Then, too, the windows of the old house were tightly sealed, puttied into place. What held Steve's attention most of all was the peculiar action of the smoke above the roof. Drifting over in huge billows from some nearby fire, it twisted into sudden action as it passed above the house. Swirling, eddying, the clouds of smoke seemed in the grip of mighty forces; they were like tenuous black dragons, thrashing in agony against the fire-lit sky. Mona was watching, puzzled, when Steve spoke.

"Come on," he muttered. "We're going in!"

SHE followed him across the street, saw him root among the debris here for a moment, come up with a short iron bar. Wedging this beneath one of the windows, he gave a quick jerk, forced it open.

"Now!" He helped Mona through the opening. "Quiet!" A moment later he had joined her, closed the window behind them.

The room was small, shadowy in the dim light from outside; it was apparently a study of some sort. Steve lit a match, glanced at the heap of papers on the big desk.

"Look!" He studied a gleaming steel paper knife, saw that its surface was undimmed. "Safe to take off our bandages now! The air's pure here! And notice these letters! From the Gestapo headquarters in Berlin! Stengel came to this country claiming to have been run out of Germany for political reasons! He . . ."

A click of a door sent him spinning about to face the entrance of the study. Dr. Stengel stood in the doorway, smiling blandly.

CHAPTER III

Prisoners

"HERR INGRAM," Stengel murmured. "And *Fraulein* Wicke! *Guten abend!* To what happy chance . . ."

"We're here . . . to return your pipe." Steve took the big meerschaum from his pocket. "It was only a few hours ago I discovered why you never lit the pipe, why you sucked at it so queerly. Very ingenious, Dr. Stengel, to put a filter in the bowl, breathe through the large hole in the stem. By using the same type of protection, common bicarbonate of soda, we were able to come through the plague zone unharmed. Obvious, now, why you acted so strangely the day you lost the pipe; you were afraid to remain in the zone without your filter. And it's odd, too, isn't it, doctor, that the very day you were telling the Emergency Committee how baffling the plague was, you were using the proper protection in that filter!"

"Good." Stengel nodded. "You Americans are clever! I regret that I must detain such intelligent and" . . . he bowed to Mona . . . "charming com-

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

pany." Then, raising his voice, "Ernst!"

"Quiet!" Steve's hand swept to his pocket, reappeared clutching a heavy automatic. "Stengel, you're leaving now, with us! Back toward that window and keep your hands raised!"

"Very dramatic." Stengel peered mildly over his gold-rimmed glasses. "But useless, I fear, Mr. Ingram. You see . . ."

A shrill scream from Mona drowned out Stengel's words. Steve whirled, caught a momentary glimpse of a huge, shadowy figure, dark, menacing. At the same instant a gun-butt crashed against his head and he slumped weakly to the floor. Dimly Steve remembered being carried by the giant Ernst along corridors, through dark rooms, with Mona and the doctor walking at his side. At length Stengel paused before a heavy iron door, unlocked it; he waved Mona across the threshold and spoke crisply to Ernst in German. The big man nodded, shoved Steve through the entrance, and slammed the door shut.

"Steve!" Mona whispered. "You . . . you're all right?"

"Sure." He staggered to his feet. "Just a glancing blow. Stunned me. But we've got to get out of here, reach Sir Geoffrey. Stengel knows the secret of the plague! Don't you see? Six months ago he arrives in London, claiming to be a refugee. Now with England helpless, Germany can demand Canada, Egypt, India, whatever she wishes! And get it!"

"You think Dr. Stengel is responsible for all that's happened?" Mona's eyes widened with horror. "But how?"

"I don't know." Steve shook his head. "You remember my looking at Dr. Willis' watch the first day we arrived in London? And examining the mortar between the stones of the buildings? I noticed the nickel of his watch was pitted; the cement eaten away. Not only does this hellish invention of Stengel's eat away human tissue, but steel, cement, rubber . . . just like an acid!"

"An acid!" Mona repeated. "That would explain the yellow skins of the bodies. But there isn't enough acid in the whole world to destroy London! And where would he get the tons of raw material to make it?"

"That's what's been puzzling me for days," Steve muttered. "But whatever it is that's wiping out the city, Stengel alone knows the secret. We've got to escape, tell the police to raid this house!"

SETTING his jaw firmly, he commenced to examine their prison. The room was small and quite empty, apparently a storeroom of some sort. A window at one end opened into a walled yard; like the others in the house it was tightly sealed, and iron bars crisscrossed the aperture. Steve stared at the window, his eyes dull with despair.

"No hope there," he muttered. "Unless . . . Mona! Look! These bars are outside! They must be pitted, eaten, like all other iron! Here!" He took the strips of bandage, the box of soda, from his pocket, made new protective masks. Then, thrusting his shoulder against the pane, he smashed the glass.

The bars were, as Steve predicted, deeply eaten. Gripping them firmly, he wrenched with all his strength. Once, twice, three times, his lean muscles cracking. Suddenly the grating tore loose from its setting sent him sprawling on the floor.

"All right," he whispered. "It's an easy drop."

Mona nodded, climbed through the opening, lowered herself lightly to the ground. A moment later Steve stood beside her, his eyes roving warily about the yard, striving to pierce the gloom.

"Wall's too high to climb," he mut-

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

tered. "And there's no gate. Let's try the door leading to the garage."

Silently, avoiding the occasional patches of moonlight, they made their way toward the garage. Steve tried the door, found it open, and stepped inside. A single feeble bulb showed the garage to be empty, the big swinging outer doors to be securely padlocked. Steve drew a sharp breath of disappointment. Every avenue of escape seemed blocked. Suddenly his eyes fell upon a square piece of wood set in the floor of the garage; sunk in the wood was a massive ring.

"A trapdoor!" Steve bent, tugged at the ring. Moving easily on well-oiled hinges, the trap swung back. Rough stone steps, gleaming slimily with moisture, led down into the vague darkness below.

"Anything's better than waiting here to be found." Steve started down the stairs. "Stay behind me, Mona."

The steps ended some ten feet below the garage. A dark tunnel, leading toward the house, faced them. Cautiously they groped their way through the gloom, muscles tensed for possible traps or pitfalls.

"This is used for bringing in supplies, I think," Mona whispered. "They could run a loaded truck into the garage at night, carry their equipment to the cellars of the house without being observed."

"Right!" Steve nodded. "And . . . look! Light ahead!"

Silently they crept along the corridor. Mona's heart thumped furiously; her breath came in gasps. All at once the passage turned sharply to the right. Ahead of her, Steve froze into immobility.

BEFORE them lay a huge room, brilliantly lighted; from its vast size Steve supposed it to be an abandoned air-raid shelter, built during the war scare of 1938. Fully half of this space was taken up by large paper sacks, of the size and shape of cement bags. Thousands upon thousands of them, piled up to the ceiling. The remaining space of the cellar was taken up with a gleaming array of glass tubing and a powerful electric motor. Busily engaged in emptying the contents of one of the sacks into a great glass sphere was the giant Ernst, his dark countenance set in a sadistic grin.

For just a moment Steve stood still, studying the scene before him. The gigantic, black-browed German was, he knew, more than a match for him. Yet, if he could take the man by surprise, try to get in a telling blow before Ernst was aware of his presence . . .

Softly he inched closer to the giant, while Mona, standing in the mouth of the tunnel, held her breath. Now Steve was only six feet from his opponent . . . five . . .

All at once Ernst, warned by some hidden instinct, whirled about. As he did so, Steve dove across the room, arms outstretched. The big man, taken off balance, toppled backwards. In an instant Steve was upon him, raining blows into his face. The experience of the past few days, however, had robbed Steve's punches of their sting. The brawny German, recovering from his initial surprise, lunged forward, locked his muscular fists about the American's throat.

Mona, watching, swayed weakly. Steve, his face crimson, his eyes bulging, the breath rattling in his throat . . . and above him the grinning Ernst, his inexorable grip growing tighter and tighter . . .

Suddenly Steve braced himself for a final effort. Drawing his legs up, he kicked out with all the strength of his wiry frame. His opponent, unprepared,

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

shot across the room, crashed into the wall. There was a sharp crack as his head hit the brick partition and he slumped to the floor, a still, sprawling figure.

"Steve!" Mona ran to join him. "You . . ."

"Lu—lucky, that's all!" He snatched up a roll of wire, lashed Ernst's hands and feet. "Let's have a good look at this machinery!"

THE apparatus, upon closer inspection, seemed to Mona baffling. It commenced at the far end of the cellar, where a heavy pipe entered through the house wall to form an air intake. A powerful electric pump, drawing the air from the outside, forced it into the gleaming six-foot glass sphere . . . the same sphere into which Ernst had emptied the contents of one of the paper bags.

Thick greyish powder swirled and danced inside the globe. From the other side of the sphere a second pipe led toward a fireplace, disappeared into the chimney. Here, there was a screw valve to regulate the amount of powder blown into the flue.

"Simple enough," Steve muttered. "Air sucked in catches the grey dust within the glass globe, forces it through the outlet pipe into the chimney. Jets it out into the air to drift over London . . . Mona! This grey powder must be causing the invisible destruction of the city!"

"But" . . . she glanced at the swirling dust inside the sphere. "I don't see . . ."

"I don't either." Steve shook his head. "I was willing to swear that it was an acid. Making the globe of glass would bear that out. But there wouldn't be enough acid to . . ." For a long moment he was silent, staring. All at once his shoulders snapped back. "God! Why didn't I think of that possibility? A catalyst!* Enough nitrogen and oxygen in the air to make unlimited amounts of nitric acid! Filling the air with it, to burn away human lungs, destroy cement, steel, stone . . . to make a shambles of London! Millions of deaths, untold destruction, all through . . ."

"This—this grey powder?" Mona whispered. "Such a comparatively tiny quantity?"

"It's not tiny!" Steve exclaimed. "The reaction takes place on the surface of the catalyst particle. Now assuming one gram . . . .455 c.c.'s . . . of the substance were divided into particles of a radius of one millionth of a centimeter, the total area of particle surface in one gram would be approximately 1500 square feet. Don't you see? Fifteen hundred square feet of acid-producing surface from only one gram! And there's tons of it from this and other distribution centers in the city! And remember, each square foot of particle surface goes on producing acid indefinitely, using the air's inexhaustible supply of nitrogen and oxygen! It's fiendish . . .!"

"Words of praise, my friend," said a mocking voice behind them.

STEVE and Mona whirled about. At the other end of the room stood Stengel, smiling sardonically. A gun gleamed dully in his hand.

"So," he chuckled. "You have done well. Almost I regret what I must now do. Yet another life or two means noth-

* A similar process would be the manner in which the cholorophyll of plants can utilize the sun's energy to create chemical changes. This is known as photo-synthesis. It would seem that Stengel's grey powder is an organic catalyst utilizing the sun's energy to unite oxygen and nitrogen into nitrogen peroxide which would in turn unite with the moisture in the air to create nitric acid. Thus, each particle of dust would be a miniature acid factory, giving off hundreds, thousands of times its own weight in nitric acid.—Ed.

LICENSED FOR PERSONAL USE
ELECTRONIC REPRODUCTION PROHIBITED

ing. For through me, me, Conrad Stengel, will the Fatherland win new lands, new glory! With this nation of shopkeepers helpless, nothing can stand between us and domination of Europe! *Ja,* perhaps America as well, if the 'plague' " . . . he chuckled again . . . "should 'spread' to that country! And you two who alone know my secret must be disposed of!" Eyes gleaming with a wild fanatic light, he raised the revolver.

Mona's cheeks went grey. Huddled against the fireplace, her deep, tortured eyes flickered toward Steve; his hands, she noticed, were behind his back, seemingly twisting something. The room was silent, except for the steady hammering of the powerful suction pump. Stengel was standing beside the great glass globe, empty now of its deadly dust, his face tense. Another moment or so . . .

"Just a second, doctor." Steve was speaking, forcing his voice to remain calm. "I'd like to satisfy my curiosity before I die. How does your process work?"

Stengel grinned, gave a simper of vanity.

"Simple, my boy, *ja,* simple. The energy is obtained from certain light rays at the violet end of the spectrum, which, incidentally, makes the process only active in the daytime. Oxygen and nitrogen on the surface of the particles are absorbed. So we have energy$+N_2+2O_2 \rightarrow 2NO_2$ or nitrogen peroxide which in turn units with the moisture of the air . . . London fogs are an admirable medium . . . and we have $3NO_2+H_2O \rightarrow 2HNO_3+NO$. The NO (nitric oxide) which is liberated, interacts with oxygen in the air to form NO_2 as the reaction with water is continued. As for the catalyst, it is an organic compound, mainly magnesium, with heavy metallic atoms at the end of a long carbon chain and is . . ."

Steve did not seem to be listening. His eyes were on the big glass globe. The motor, pounding away, seemed suddenly labored. Mona, a pale waxworks figure, heard Stengel's voice dimly . . . " and now you know, *nicht wahr?* So with your tragic curiosity satisfied . . ."

His gun was raised once more. Stengel's expression was stolid, cold. Steve was leaning forward anxiously, his face damp with sweat; he seemed to be waiting. The doctor's fingers tightened about the trigger . . . Suddenly an ominous cracking sound issued from the glass sphere. Stengel's head turned in alarm.

"Mona!" It was Steve's voice, harsh with excitement. She felt his arms seize her, drag her to the floor.

As he did so, a shattering explosion rocked the room. The globe flew into a thousand pieces, showering them with shards of glass. Stengel, standing beside the sphere, slumped to the floor, his face a shattered, crimson, blood-stained mask.

"Steve!" Mona watched him bend over the sprawling, bloody figure. "What . . . what was it?"

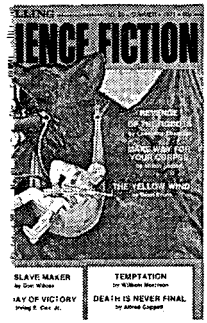
"Pressure. Plain ordinary air pressure." With deft fingers he was binding the doctor's torn face. "I just reached behind me, closed the valve that regulated the flow of air to the chimney. With the motor running and no outlet, the glass 'mixing chamber' had to burst. And now . . ." Steve straightened up . . . "We can go through Stengel's papers, get the location of the other zone centers. Scotland Yard men, using the soda air-filters, can raid them, shut off the flow of the catalyst into the air. Then, working with anti-acid apparatus . . ."

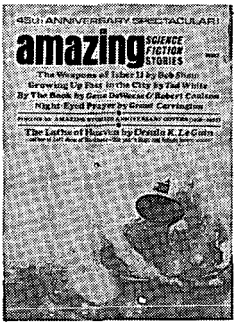
"London will be safe," finished Mona, her eyes shining happily.

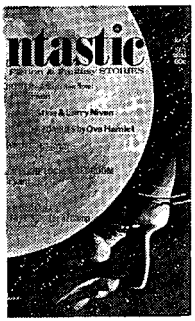
LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

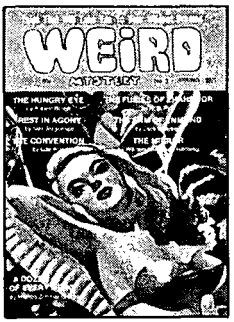
From the WORLD'S LARGEST PUBLISHER OF S-F AND FANTASY

THE MAGAZINES OF THE 70'S




45th ANNIVERSARY SPECTACULAR!
amazing SCIENCE FICTION STORIES
The Weapons of Isher II by Bob Shaw
Growing Up Fast in the City by Ted White
By The Book by Gene DeWeese & Robert Coulson
Night-Eyed Prayer by Grant Carrington
The Lathe of Heaven by Ursula K. Le Guin





A NEW COLLECTION BY TODAY'S BEST WRITERS
STRANGE FANTASY
CLIFFORD D SIMAK · ROGER ZELAZNY
FRITZ LEIBER · KATE WILHELM
RON GOULART · JOHN BRUNNER
URSULA K. LE GUIN
THOMAS M. DISCH

CLIP AND MAIL THIS MONEY-SAVING COUPON TODAY.

Please send me the issues @ 60¢ copy.

I enclose .....

Name _____

Address _____

City _____ State _____ Zip Code _____

If you do not want to mutilate this magazine, make facsimile of coupon.

Mail to: SCIENCE FICTION ADVENTURE CLASSICS,
Box 7, Oakland Gardens, Flushing, N.Y. 11364

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

THE HIDDEN UNIVERSE
by Ralph Milne Farley

MR. CRADDOCK'S AMAZING EXPERIENCE
by William F. Temple

THE MAN WHO WALKED THROUGH MIRRORS
by Robert Block

THE EARTH'S CORE
by Henry Gade

THE INVISIBLE INVASION
by Frederick Arnold Kummer Jr.

LOCKED CITY
by Thornton Ayre

WIVES IN DUPLICATE
by Don Wilcox

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED